

Annual Report – Calendar Year 2019
Kentucky Wetland and Stream Fee-In-Lieu-Of Mitigation Program

In Accordance with
“Modification of the Agreement Concerning In-Lieu Mitigation Fees between the
U.S. Army Corp of Engineers and
the Kentucky Department of Fish and Wildlife Resources”

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Introduction

This report provides information on the Kentucky Wetland and Stream Mitigation “Fee In-Lieu of” (FILO) Program sponsored by the Kentucky Department of Fish and Wildlife Resources (KDFWR) for the calendar year 2019 (CY19). This report refers to two periods in time called pre-Transition and post-Transition. October 2002 until January 2012 is considered pre-Transition. During this time, the FILO program operated under the “Agreement Concerning In-Lieu Mitigation Fees between Kentucky Department of Fish and Wildlife Resources and U.S. Army Corps of Engineers.” This Agreement established that the Wetland and Stream Mitigation Trust Fund within KDFWR may receive mitigation in lieu-fees from Department of Army permittees and in exchange, KDFWR would identify, assess, and implement stream and wetland restoration opportunities in Kentucky.

In January 2012, the Agreement was replaced to comply with the 2008 Mitigation Rule (USACE 2008) and the resulting document is referred to as the Instrument (USACE 2011). This “Transition” from Agreement to Instrument separates pre-Transition and post-Transition. This is the eighth annual report since transitioning the program to comply with the 2008 Mitigation Rule. It is the second annual report under the most recent modification of the Instrument between the U.S. Army Corps of Engineers (USACE) and KDFWR (USACE 2018), which added the Northern Kentucky Service Area. The report includes information required under the terms of the Instrument and additional information related to the program for activities in CY19. The report includes program activities in the Louisville, Nashville, and Memphis USACE district offices.

In July 2000, the Kentucky Legislature passed KRS 150.255, which established The Kentucky Wetland and Stream Mitigation Fund. The KDFWR Wetland and Stream Mitigation Program manages this fund to provide a consistent and successful approach to fulfill compensatory mitigation requirements associated with the Clean Water Act Section 404 and Section 401, which are administered respectively by the USACE and the Kentucky Division of Water (KDOW). A Section 404 permit from the USACE and a Section 401 Water Quality Certification from KDOW are needed for activities that cause the permanent loss of streams or wetlands. These permits require compensatory mitigation for the losses. The intent of the mitigation is to offset the permanent loss of stream and wetland habitat within a defined watershed or regional area.

One option for 404 permit applicants to satisfy compensatory mitigation requirements is to purchase mitigation credits in-lieu of performing the mitigation themselves. This method of mitigation is termed “in-lieu fee mitigation.” The FILO program is a KDFWR-sponsored in-lieu fee mitigation program that is supported by sales of mitigation credits to Section 404 permit applicants to satisfy regulatory requirements. The monies generated pay for stream and wetland projects that improve degraded habitat in streams and wetlands throughout the Commonwealth.

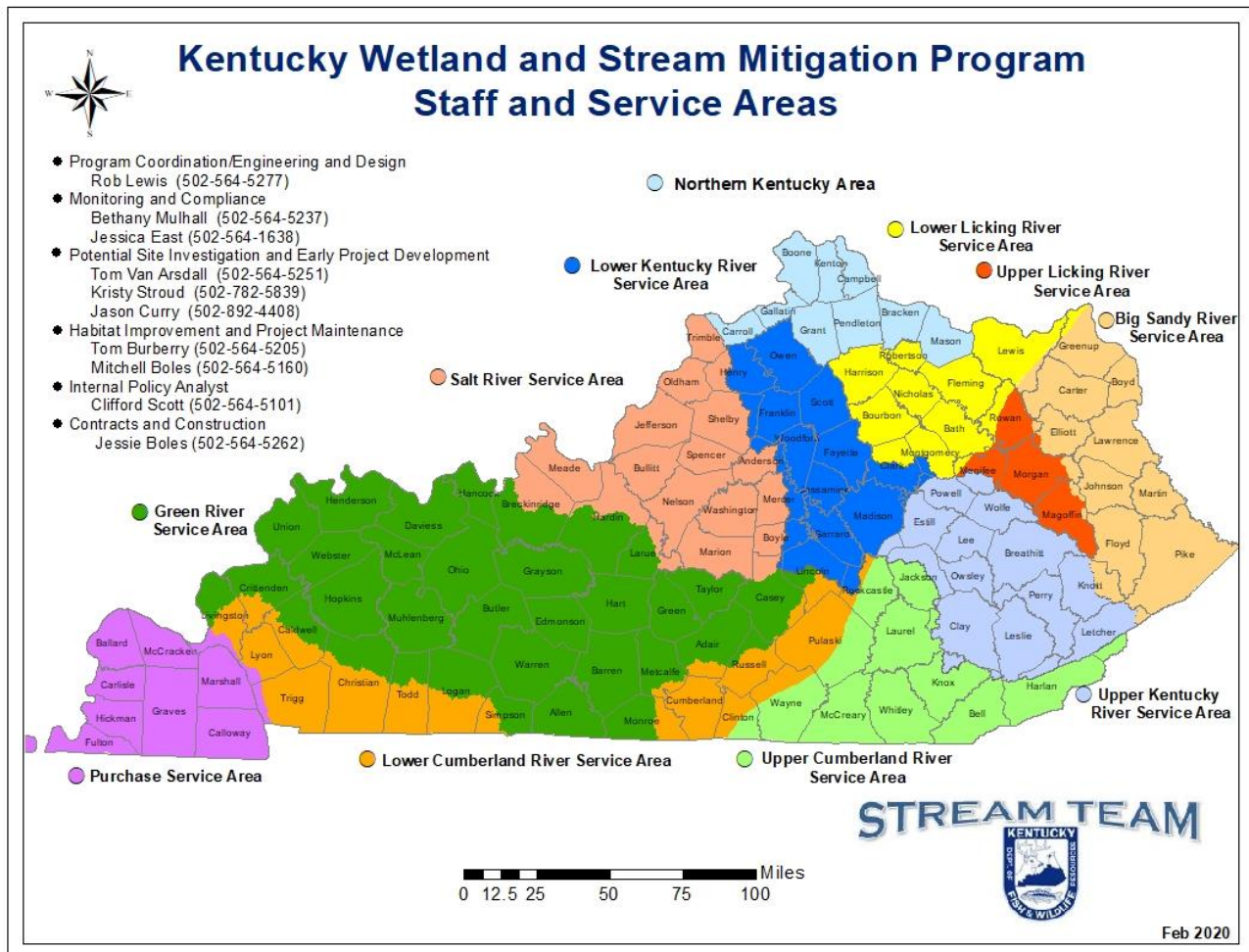
The USACE has Instruments with two separate in-lieu fee programs (or sponsors) in Kentucky: Northern Kentucky University (NKU) and KDFWR (**Figure 1**). The Instruments between the sponsors and the USACE ensure that the mitigation completed is sufficient to compensate for losses, provides permanent protection and long-term management, and adheres to applicable federal and state regulations and guidelines. By accepting in-lieu fee payments, the sponsor is assuming responsibility to provide compensatory mitigation pursuant to the terms of the

Instrument established with the USACE. By purchasing credits from an in-lieu fee program, developers seeking USACE permits are relieved of mitigation obligations.

The Instrument defines the roles of an Interagency Review Team (IRT) composed of the USACE, KDOW, and U.S. Fish and Wildlife Service (USFWS), pursuant to federal rules. The U.S. Environmental Protection Agency (USEPA) is not a signatory agency to the Instrument but can provide comments on individual mitigation projects during the USACE permit process. The function of the IRT is to review and comment on proposed projects, monitoring reports, remedial management measures, credit releases, and instrument modifications. The USACE consults with the IRT to provide oversight of mitigation programs. Although there are four USACE districts in Kentucky (Memphis, Nashville, Huntington, and Louisville), the Louisville District is the Lead District for communicating with the sponsor and coordinating with the IRT on issues related to the Instrument and it has assumed jurisdiction for Section 404 regulatory projects in the Huntington District's region of Kentucky. The individual districts are responsible for specific issues with projects under their jurisdiction.

Mitigation projects are implemented on private or public lands and on lands owned or acquired by KDFWR; therefore, the success of the program is in part dependent on cooperation of landowners. Under additional restrictive selection criteria, the program also has the capability of preserving high quality aquatic resources through acquisition of properties with such resources and permanently protecting those areas through legal instruments and management. The Instrument requires that all KDFWR in-lieu fee projects be permanently protected through conservation easements, the purchase of lands with deed restrictions, or long-term management plans on public properties such as U.S. Forest Service National Forest lands. For private lands, this involves identifying landowners willing to cooperate with the sponsor to donate or sell a conservation easement or to sell the property in fee-simple.

Figure 1. Kentucky Wetland and Stream Mitigation Program Staff and Service Areas



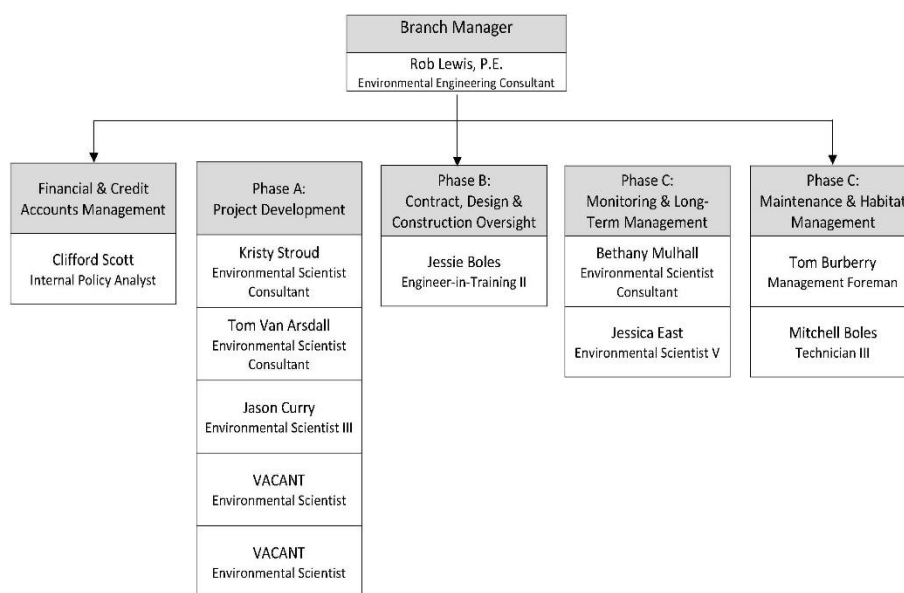
Updated Agreement and Instrument Modifications

The Instrument went into effect on January 13, 2012 by Public Notice from the USACE. Its purpose was to comply with the 2008 Final Mitigation Rule (USACE 2008). The Instrument delineated service areas into ten units: Upper Kentucky River, Lower Kentucky River, Upper Cumberland River, Lower Cumberland River, Upper Licking River, Lower Licking River, Big Sandy River, Green River, Salt River, and Jackson Purchase Service Areas. In early 2018, a Modification to the Instrument added a Northern Kentucky Service Area comprised of nine counties overlapping with NKU's Instrument. Mitigation credits can now be purchased from either NKU or KDFWR in these nine counties (**Figure 1**). Ecological Integrity Units (EIUs) are mitigation credit units calculated by the Eastern Kentucky Stream Assessment Protocol (EKSAP) used in the Big Sandy River, Upper Licking River, Upper Kentucky River and Upper Cumberland River service area. Adjusted Mitigation Units (AMUs) are mitigation credit units calculated by the Kentucky Assessment Protocol (KAP) used in the remaining service areas of the Commonwealth.

Fifteen projects have been permitted since early 2012 under the USACE Letter of Permission (LOP) process. USACE adds each project to the Instrument as modifications (**Appendix D**). Projects permitted in CY19 were: 1) Big Farm Indian Creek Stream Restoration Project and 2) Blue Springs Stream Restoration Project

FILO Staff and Assignments

Most FILO workload is allocated functionally into program operation and project stages: Financial and Credit Account Management; Phase A – Project Development; Phase B – Design and Construction; Phase C – Monitoring and Long Term Management. However, FILO staff often combine into teams to assist in any phase as needed. The flowchart below depicts FILO’s current organization:



FILO changed the job title descriptions from Environmental Biologist series to Environmental Scientist series for several staff members to better fit their position descriptions. This year saw the departure of Stephanie Petriello of Phase A – Project Development section. Kristy Stroud was promoted to Phase A Coordinator. Staff numbered ten individuals at the end of 2019.

Landowner Contacts and Potential Project Site Visits

Potential project site visits made by FILO staff in CY19 are shown in **Table 1**; the table does not reflect the many landowner and realtor contacts that did not result in site visits. Consultants were used to locate potential projects in the Big Sandy, Upper Licking, Upper Kentucky, Upper Cumberland, Lower Cumberland, Green, and Northern Kentucky service areas. The table only shows sites visited by FILO staff and does not depict the complete effort of consultants.

Table 1. Initial Site Visits in CY19

Service Area	Site Name	County	Public or Private	Project Type	Land Protection
Big Sandy	Grassy Creek	Carter	Private	Stream	Fee Simple Purchase
Big Sandy	Staggs Branch II	Lewis	Private	Stream	Fee Simple Purchase
Big Sandy	Pleas Creek	Lawrence	Private	Stream	Fee Simple Purchase
Big Sandy	Collier's Creek	Lawrence	Private	Stream	Fee Simple Purchase
Big Sandy	Blythe	Lawrence	Private	Stream	Fee Simple Purchase
Big Sandy	Sheepskin	Lawrence	Private	Stream	Fee Simple Purchase
Big Sandy	Knob Branch	Lawrence	Private	Stream	Fee Simple Purchase
Big Sandy	Middle Fork	Lawrence	Private	Stream	Fee Simple Purchase
Big Sandy	Plum Fork	Boyd	Private	Stream	Fee Simple Purchase
Big Sandy	Poor Fork	Harlan	Private	Stream	Conservation Easement
Green River	Ivy Creek	Warren	Private	Stream and Wetland	Conservation Easement
Green River	Green River State Forest	Henderson	Private	Wetland	Fee Simple Purchase
Green River	Gary Creek	Butler	Private	Stream and Wetland	Fee Simple Purchase
Green River	Buck Fork	Christian	Private	Stream	Conservation Easement
Salt River	Floyds Fork Wetland	Jefferson	Public	Wetland	Conservation Easement
Salt River	Harrison Fork	Nelson	Private	Stream	Conservation Easement
Jackson Purchase	Davis Farms	Carlisle	Private	Wetland	Conservation Easement
Jackson Purchase	Mayfield Creek	Carlisle / Ballard	Private	Wetland	Fee Simple Purchase
Upper Cumberland	Greasy Creek	Bell	Private	Stream	Fee Simple Purchase
Lower Cumberland	Mud Camp I	Cumberland	Private	Stream	Fee Simple Purchase
Lower Cumberland	Mud Camp II	Cumberland	Private	Stream	Fee Simple Purchase
Lower Cumberland	Mud Camp III	Cumberland	Private	Stream	Fee Simple Purchase
Lower Cumberland	Claylick Creek	Crittenden	Private	Stream	Conservation Easement
Upper Kentucky	Doe Creek II	Owsley	Private	Stream	Fee Simple Purchase
Upper Kentucky	Ross Creek #4	Estill / Lee	Private	Stream	Fee Simple Purchase
Upper Kentucky	Ross Creek #5	Lee	Private	Stream	Fee Simple Purchase
Upper Kentucky	Ross Creek #6	Lee	Private	Stream	Fee Simple Purchase
Lower Kentucky	Sebree Cr	Franklin	Private	Stream	Conservation Easement
Lower Kentucky	Ky River Wetland	Franklin	Private	Wetland	Conservation Easement
Lower Kentucky	Hickman Creek	Jessamine	Private	Stream	Conservation Easement
Lower Kentucky	Eagle Creek	Owen	Private	Stream	Fee Simple Purchase
Lower Kentucky	Richland Creek	Owen	Private	Stream	Conservation Easement
Lower Kentucky	Andover Golf	Fayette	Private	Stream	Conservation Easement
Northern Kentucky	Middle Cr Phase III	Boone	Private	Stream	Fee Simple Purchase
Northern Kentucky	Middle Cr Phase II	Boone	Public/Private	Stream and Wetland	Conservation Easement
Northern Kentucky	Middle Cr Phase I	Boone	Private	Stream	Conservation Easement
Northern Kentucky	St. Anne Wetland	Campbell	Public	Wetland	Conservation Easement
Northern Kentucky	Sleepy Hollow	Mason	Public	Stream and Wetland	Conservation Easement
Northern Kentucky	Camp Ernst -YMCA	Boone	NGO	Stream	Conservation Easement
Northern Kentucky	Boone Co Nature Ctr	Boone	Public	Stream	Conservation Easement
Northern Kentucky	Gunpowder Cr Natur	Boone	Public	Stream	Conservation Easement
Northern Kentucky	Gunpowder Valley Park	Boone	Public	Stream	Conservation Easement
Northern Kentucky	Sebree tract	Boone	Private	Wetland	Fee Simple Purchase
Northern Kentucky	Lick Cr	Boone	Private	Stream	Conservation Easement
Northern Kentucky	Potter Ranch	Boone	NGO	Wetland	Conservation Easement
Northern Kentucky	Boone Cliffs SNP	Boone	Public	Stream	Conservation Easement
Northern Kentucky	Gunpowder-Frohlich	Boone	Private	Stream	Conservation Easement
Northern Kentucky	Lassing Pointe Golf Club	Boone	Public	Stream	Conservation Easement
Northern Kentucky	Steep Cr - Stites tract	Boone	Private	Stream	Conservation Easement
Northern Kentucky	Woolper Cr-England Park	Boone	Public	Stream	Conservation Easement
Northern Kentucky	Sleepy Hollow-Devo	Kenton	Public ⁵	Stream	Conservation Easement

Credit Costs and Status

The Instrument established 240,000 advance stream credits in each service area, except the Northern Kentucky Service Area, which established 100,000 advance stream credits. In addition, 100 wetland AMU advance credits were established in each service area except in the Green and Purchase service areas where 200 wetland AMU advance credits were provided. In CY19, there were no stream or wetland credit cost changes to the service areas.

In November 2014, credit sales were suspended in the Big Sandy Service Area due to: 1) the difficulty in finding mitigation projects meeting criteria (i.e. sites without mineral rights, property title or owner issues, or water quality issues); 2) the 3-year timeframe for initiating mitigation projects from the time fees were received was not going to be met; and 3) several large tracts of land involving thousands of potential mitigation credits that would have covered the obligation could not be developed further because of oil and gas interests. Credit sales had not been resumed by the end of CY19.

In CY19, FILO sold 10,078 stream EIUs, 93,460.5 stream AMUs, and 50.50 wetland AMUs (**Tables 3, 3.1 & 4**). **Table 3** shows credit balances for streams and **Table 4** shows credit balances for wetlands in each service area. **Appendix A** presents individual credit sales.

Table 2. Credit Costs (\$)

<u>Service Area</u>	<u>Stream</u>					<u>Wetland</u>		
	<u>Cost/Credit</u>					<u>Cost/AMU</u>		
	Transition to 2012	Effective March 2012	Effective 01/15/15	Effective 06/01/17	Current Effective 04/20/18	Transition to 07/15/14	Effective 07/15/14	Current Effective 04/20/18
Big Sandy (EIU)	610	650	755 ^a	710 ^a	950 ^a	30,000 ^a	45,840 ^a	49,500 ^a
Upper Licking (EIU)	610	610	755	710	710	30,000	45,840	49,500
Upper Kentucky (EIU)	610	610	755	710	785	30,000	45,840	49,500
Upper Cumberland (EIU)	610	610	755	710	755	30,000	45,840	49,500
Lower Licking (AMU)	215	240	300	280	300	30,000	45,840	49,500
Lower Kentucky (AMU)	215	240	300	280	285	30,000	45,840	49,500
Lower Cumberland (AMU)	215	240	300	280	355	30,000	45,840	49,500
Green (AMU)	215	240	300	280	335	30,000	45,840	49,500
Salt (AMU)	215	240	300	280	325	30,000	45,840	49,500
Jackson Purchase (AMU)	215	240	300	280	340	30,000	45,840	49,500
Northern Kentucky (AMU)					385			49,500

^aBig Sandy credit sales suspended November 17, 2014

Table 3 and 3.1. Advance Stream Credit Balances

<u>Stream EIU</u> <u>Regions</u>	<u>Big Sandy</u>	<u>Upper</u> <u>Kentucky</u>	<u>Upper Licking</u>	<u>Upper</u> <u>Cumberland</u>	<u>Stream EIU</u> <u>Totals</u>
Advance Credit Allocation	240,000	240,000	240,000	240,000	
CY2018 Credit Balance	203,328.66	218,391.37	226,326.40	230,547.49	
CY2019 Credits Sold	-	9,093.00	-	985.00	10,078.00
CY2019 Released Credits	453.00	-	-	-	453.00
Advance Stream EIU Balance	203,781.66	209,298.37	226,326.40	229,562.49	

<u>Stream AMU</u> <u>Regions</u>	<u>Lower</u> <u>Kentucky</u>	<u>Lower</u> <u>Licking</u>	<u>Lower</u> <u>Cumberland</u>	<u>Green</u>	<u>Salt</u>	<u>Jackson</u> <u>Purchase</u>	<u>Northern</u> <u>Kentucky</u>	<u>Stream AMU</u> <u>Totals</u>
Advance Credit Allocation	240,000	240,000	240,000	240,000	240,000	240,000	100,000	
CY2018 Credit Balance	222,524.80	201,860.93	179,967.59	191,949.94	117,855.96	237,151.51	94,806.00	
CY2019 Credits Sold	1,043.00	1,008.00	629.00	2,867.00	231.00	-	87,682.50	93,460.50
Released Credits	-	9,588.00	-	-	-	-	-	9,588.00
Advance Stream AMU Balance	221,481.80	210,440.93	179,338.59	189,082.94	117,624.96	237,151.51	7,123.50	

Table 4. Advance Wetland Credit Balances

<u>WETLAND AMUs</u>	<u>Big Sandy</u>	<u>Upper Kentucky</u>	<u>Lower Kentucky</u>	<u>Upper Licking</u>	<u>Lower Licking</u>	<u>Upper Cumberland</u>	<u>Lower Cumberland</u>	<u>Green</u>	<u>Salt</u>	<u>Jackson Purchase</u>	<u>Northern Kentucky</u>	<u>Wetland AMU Totals</u>
Advance Credit Allocation	100.000	100.000	100.000	100.000	100.000	100.000	100.000	200.000	100.000	200.000	100.000	
CY2018 Credit Balance	93.439	84.450	87.768	85.780	99.020	81.959	76.057	146.312	57.837	196.880	100.000	
CY2019 Credits Sold	-	5.200	1.100	-	1.600	0.700	-	7.300	3.900	-	30.700	50.500
Released Credits	-	-	-	-	-	-	-	-	-	-	-	-
Advance Wetland AMU Balance	93.439	79.250	86.668	85.780	97.420	81.259	76.057	139.012	53.937	196.880	69.300	

Program Financial Status

During CY19, credit sales brought in nearly \$50M total receipts, representing roughly \$35M in project funds (**Table 5**). The Northern Kentucky Service Area contributed the highest percentage of receipts (77%) totaling just over \$35M. The Upper Kentucky River Service Area had the second highest number of credit sales resulting in over \$7.3M in receipts and representing 16% of the total credit sales (**Table 5**). The largest category of receipts came from Development at just over 71% (**Table 6**). The KY Transportation Cabinet purchased the second highest number of credits representing just over 20% of the total.

Table 5. CY19 Service Area Receipts and Project Funds (\$)

Service Area	CY2019 Total Receipts	CY2019 Receipts to Reserve	CY2019 Receipts to Admin	CY2019 Receipts to Projects	CY2019 Beginning Project Balance Stream & Wetland	CY2019 Ending Project Balance Stream & Wetland	CY2019 Service Area % of Receipts
Big Sandy	-	-	-	-	18,749,173	18,749,173	0%
Upper Kentucky	7,395,405	739,541	739,541	5,916,324	12,683,597	18,599,921	16%
Lower Kentucky	351,705	35,171	35,171	281,364	4,764,942	5,046,306	1%
Upper Cumberland	778,325	77,833	77,833	622,660	7,148,147	7,770,807	2%
Lower Cumberland	223,295	22,330	22,330	178,636	13,078,078	13,256,714	0%
Upper Licking	-	-	-	-	7,768,826	7,768,826	0%
Lower Licking	381,600	38,160	38,160	305,280	7,661,053	7,966,333	1%
Salt	268,125	26,813	26,813	214,500	28,599,623	28,814,123	1%
Green	1,321,795	132,180	132,180	1,057,436	10,512,169	11,569,605	3%
Jackson Purchase	-	-	-	-	737,627	737,627	0%
Northern Kentucky	35,277,413	3,527,741	5,291,612	26,458,059	1,599,752	28,057,811	77%
TOTALS	45,997,663	4,599,766	6,363,637	35,034,259	113,302,986	148,337,246	100%

Table 6. FILO Receipts by Source - CY19

<u>Source</u>	<u>Receipts (\$)</u>	<u>% of total</u>
KY Transportation Cabinet	9,426,225	20.5%
Municipal	0	0.0%
Development	32,730,375	71.2%
Utilities	3,841,063	8.4%
Mining	0	0.0%
Other	0	0.0%
Total	45,997,663	100.0%

Project Fund Status

Table 7 shows: 1) project funds received for streams and wetlands in each of the eleven service areas post-Transition through CY19; 2) funds currently allocated to “approved” projects; and 3)

funds unallocated at the end of the year. Approximately \$70.4M is allocated to stream projects and roughly \$79.1M of stream project money is un-allocated, mostly in the Salt, Big Sandy, and Upper Kentucky River service areas. Approximately \$9M is over-allocated in the Lower Licking and Lower Kentucky River service areas. The Reserve might be used to cover over-allocations.

Over \$7.8M in project funds has been collected for wetland mitigation since the Transition (**Table 7**), with about \$2.7M allocated, mostly in the Green River Service Area. Approximately \$5M of wetland funds is unallocated, mostly in the Northern Kentucky Service Area.

Table 7. Allocated and Unallocated Project Funds for Stream and Wetland by Service Area (\$)

<u>Basin</u>	<u>Stream</u>			<u>Wetland</u>			<u>Unallocated Service Area balance</u>
	<u>Project</u>	<u>Allocated</u>	<u>Unallocated</u>	<u>Project</u>	<u>Allocated</u>	<u>Unallocated</u>	
Big Sandy	18,597,032	7,972,235	10,624,797	152,141	0	152,141	10,776,938
Upper Kentucky	17,865,658	1,768,512	16,097,146	734,261	193,136	541,125	16,638,271
Lower Kentucky	4,635,597	6,789,621	(2,154,023)	410,708	133,620	277,088	277,088
Upper Cumberland	7,233,034	6,135,451	1,097,583	537,773	0	537,773	1,625,356
Lower Cumberland	12,620,372	6,325,120	6,295,252	636,343	0	636,343	6,931,595
Upper Licking	7,279,943	4,252,299	3,027,644	488,884	34,380	454,504	3,482,148
Lower Licking	7,880,914	14,839,800	(6,958,886)	85,419	0	85,419	85,419
Green	9,624,856	6,210,676	3,414,180	1,944,749	1,410,000	534,749	3,948,929
Salt	27,212,881	16,161,455	11,051,426	1,601,242	968,982	632,261	11,683,687
Jackson Purchase	662,198	0	662,198	75,429	0	75,429	737,627
Northern Kentucky	26,918,074	0	26,918,074	1,139,738	0	1,139,738	28,057,811
Total	140,530,558	70,455,168	79,188,300^a (9,112,909)^b	7,806,687	2,740,118	5,066,569	84,244,869

^aTotal of unallocated funds

^bOver-allocation of stream funds in 2 service areas (covered by Reserve funds)

Reserve Fund

Pursuant to the Instrument, the Reserve Fund was established to fund contingency actions and long term management. The Reserve Fund functions as an endowment and insurance to cover contingency needs and maintenance costs. It pays for additional mitigation projects, permanent protection activities, minor repair actions, and other activities not funded through service area or administrative accounts. Contributions to the Reserve Fund come from 10% of credit sales and 90% of accumulated interest. A non-wasting amount of \$3M was designated for the Reserve Fund. The balance of funds above the non-wasting limit is referred to as the “Active Reserve.” These funds can be spent for remedial actions or additional projects that generate a surplus of credits.

The contribution to the Reserve Fund during CY19 from credit sales and interest was \$8,849,553. The total Reserve Fund at the end of CY19 was \$24.2M, which results in an active Reserve Fund of \$21.2M when accounting for the \$3M non-wasting Reserve Fund required by the Instrument. **Table 8** gives a full accounting of the Reserve Fund, including those funds currently projected as needed in two service areas with an over-allocation of project funds. The over-allocation of project funds potentially generates mitigation credits with completed projects ‘on the ground’ in advance of impacts helping to address the 3-year timeframe requirement. Any additional receipts in the respective service areas will be used instead of the Reserve Fund. These additional receipts will reduce, if not remove, the need to ‘cover’ these over-allocated service areas with the Reserve Fund.

Each year, the program seeds a long term management and maintenance account with funds from the Reserve Fund to pay for management and minor remedial actions (**Table 8**). This allows the program to be responsive to the USACE and IRT in taking necessary remedial or maintenance actions.

Table 8. CY19 Reserve Fund Activity and Balance (\$)

CY2019	Beginning Cash Balance	\$ 24,664,060
CY2019	% of Stream Receipts	\$ 4,349,791
CY2019	% of Wetland Receipts	\$ 249,975
CY2019	% of Interest	\$ 4,249,787
CY2019	additional funding for long term maintenance	\$ (200,000)
CY2019	CY2019 - Ending Reserve Cash Balance	\$ 33,313,613
CY2019	CY2019 - Funds required for overallocation of Lower Ky SA stream projects	\$ (2,154,023)
CY2019	CY2019 - Funds required for overallocation of Lower Licking SA stream projects	\$ (6,958,886)
CY2019	CY2019 -Total Reserve Ending Balance (after Service Area obligations)	\$ 24,200,704
CY2019	CY2019 - Non-wasting Reserve	\$ 3,000,000
CY2019	CY2019 - Active Reserve Ending Balance	\$ 21,200,704

Administrative Fund

The Administrative Fund is used for expenses associated with activities to operate the program and to identify new projects. Such activities include feasibility studies, consultant contracts for site searches, outreach and property work, staff salaries, equipment, and other indirect expenses such as travel and training. The Administrative Fund balance entering CY19 was \$10,678,404. During CY19, \$6,835,835 was added to the Administrative Fund from 10% of credit sales and 10% of the accumulated interest. **Table 9** details the use of the Administrative Fund during CY19, leaving a year-end balance of \$14,318,349. An indirect charge to the ILF program from KDFWR increased operating expenditures for CY19. The CY19 total annual Operating Expenditures equaled \$2,195,890.

Table 9. CY19 Administrative Fund Activity and Balance (\$)

CY2019	Beginning Balance	\$ 10,678,404
CY2019	% of Stream Receipts	\$ 6,037,679
CY2019	% of Wetland Receipts	\$ 325,958
CY2019	% of Interest	\$ 472,199
CY2019	Operating Expenditures	\$ (2,195,890)
CY2019	Additional funding for JP, LC, Green RSA FY17-18 service area fund	\$ (100,000)
CY2019	Additional funding for Big Bone Lick Feasibility Study	\$ (100,000)
CY2019	Additional funding for Preliminary Title and Survey	\$ (300,000)
CY2019	Additional funding NKY, LK, LL RSA 19-20 service area fund	\$ (400,000)
CY2019	Additional funding BS, UC, UK, UL RSA FY19-20 service area fund	\$ (100,000)
CY2019	CY2019 - Ending Balance	\$ 14,318,349

Mitigation of Impacts

Prior to the 2008 Mitigation Rule fully taking effect with the Instrument in early 2012, it was not possible to relate mitigation impacts caused by 404-permitted activities because in-lieu-fee payments to FILO had little documentation regarding the quantity, quality, and flow regime of stream impacts. This was especially true during the first few years of the in-lieu fee program. It was assumed that impacts and mitigation occurred on similar stream flow types, resulting in similar linear feet affected. Thus, the pre-Transition programmatic success was based on cost per linear foot. The available data could track the amount of in-lieu fees received and the timing of the allocation of those funds to mitigation projects. With the implementation of the Instrument and the conversion of unallocated funds to credits, it is possible to compare impacts (Advance Credits sold by FILO) to mitigation (Advance Credits fulfilled by FILO) for projects that began (approved by the IRT) post-Transition. Many of the projects reported here were permitted prior to the Transition.

Actions Taken by Interagency Review Team

Fourteen conceptual plans were submitted and thirteen IRT site visits were conducted in CY19 (**Table 10**). Ten of the fourteen projects were approved, two were still awaiting IRT comments at the end of CY19 and two were terminated. The site visit for the concept plan submitted in late December 2018 was scheduled for early 2019.

Table 10. CY19 Conceptual Plans Submitted, Actions of Interagency Review Team, Subsequent Activity

Project	Service Area	USACE District	County	Type	CP Submitted	IRT Site Visit	Status
Grassy Creek	Big Sandy	Louisville	Carter	Stream	Jun-19	7/30/2019	Approved
Staggs Branch II	Big Sandy	Louisville	Lewis	Stream	May-19	7/16/2019	Approved
Ivy Creek	Green	Louisville	Warren	Stream and Wetland	Oct-19	12/3/2019	Approved
Middle Creek III	Northern Kentucky	Louisville	Boone	Stream	Aug-19	10/16/2019	Approved
Floyds Fork Wetland	Salt	Louisville	Jefferson	Wetland	Oct-19	12/2/2019	Pending on IRT Approval
Green River St. Forest	Green	Louisville	Henderson	Wetland	May-19	7/16/2019	Approved
Kaler Bottoms	Jackson Purchase	Nashville	Graves	Wetland	Aug-19	9/27/2019	Pending on IRT Approval
Mud Camp I	Lower Cumberland	Nashville	Cumberland	Stream	Aug-19	10/28/2019	Approved
Middle Creek I	Northern Kentucky	Louisville	Boone	Stream	Jun-19	8/1/2019	Approved
Doe Creek I	Upper Kentucky	Louisville	Owsley	Stream	Mar-19	4/26/2019	Approved
Ross Creek #4	Upper Kentucky	Louisville	Estill, Lee	Stream	Jul-19	9/30/2019	Approved
Anderson Branch	Upper Kentucky	Louisville	Powell	Stream	Apr-19	7/16/2019	Terminated
Pleas Creek	Big Sandy	Louisville	Lawrence	Stream	Dec-18	1/9/2020	Pending on IRT Approval
Bailey Branch	Lower Cumberland	Nashville	Monroe	Stream	Jan-19	3/4/2019	Terminated

Project Statistics and Status

The IRT has approved 128 projects over the FILO program's 17-year history (2002-2019) (**Figure 2**). Eighty-six projects (Ross Creek I and II, approved as two separate projects, are now a single project) have been completed or are in various stages of development (**Figure 3; Appendix B**). Of these projects, 47 (55%) were originally or are now on land owned by a government, education, or conservation organization. Thirty-nine projects (45%) are on private land and have or will have conservation easements.

The IRT has approved 47 projects since the FILO program's inception that have not been constructed, typically because of property issues such as mineral rights or title concerns, cost, or because of landowner issues. These projects were approved but later terminated after initial site inspection, property and title investigation, project and conceptual plan development, IRT site visit and comment, or occasionally survey and even design (**Appendix B**).

Figure 2. IRT Approved Projects Since Program Inception

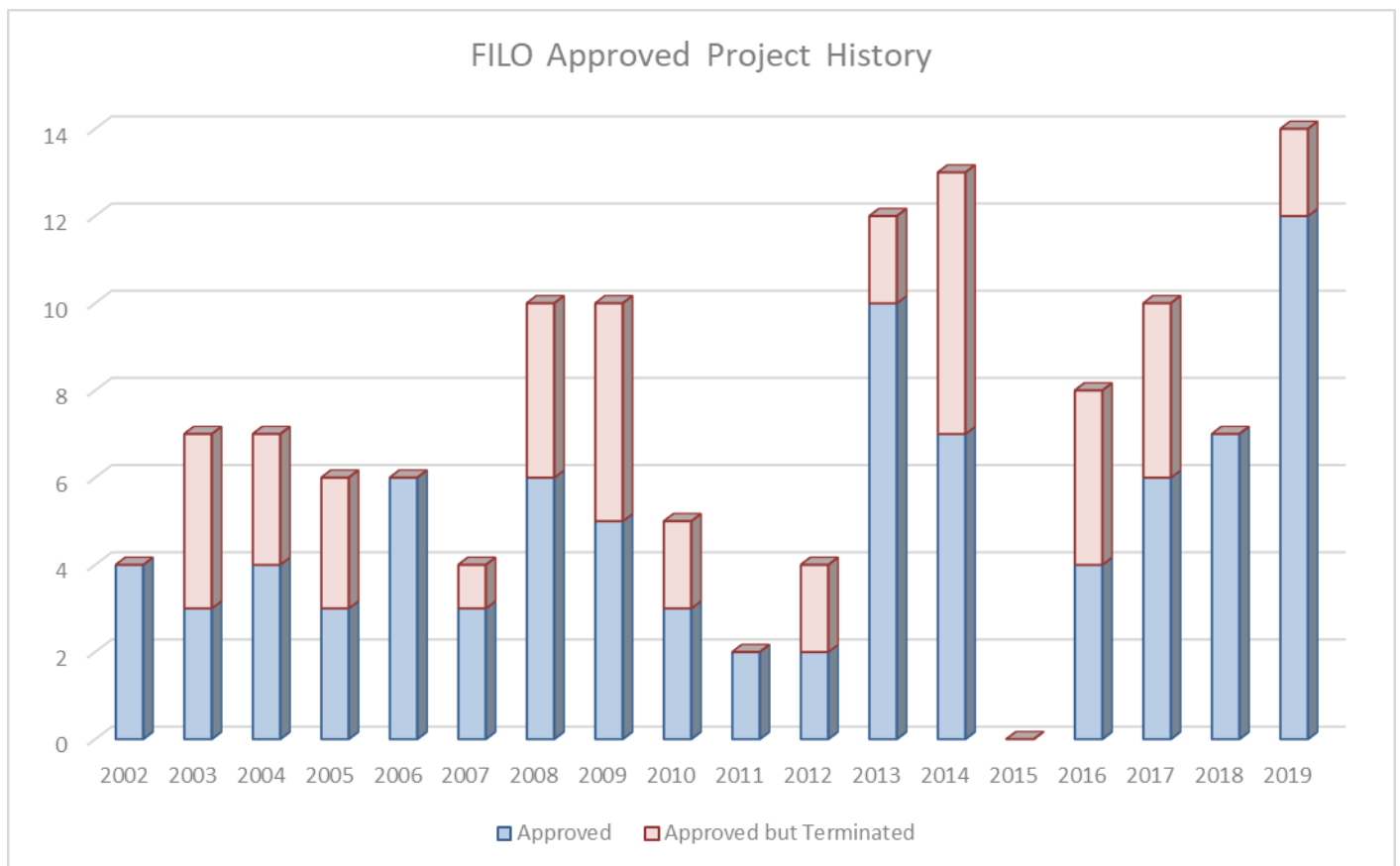


Figure 3. Kentucky Wetland and Stream Mitigation Program CY19 Project Status

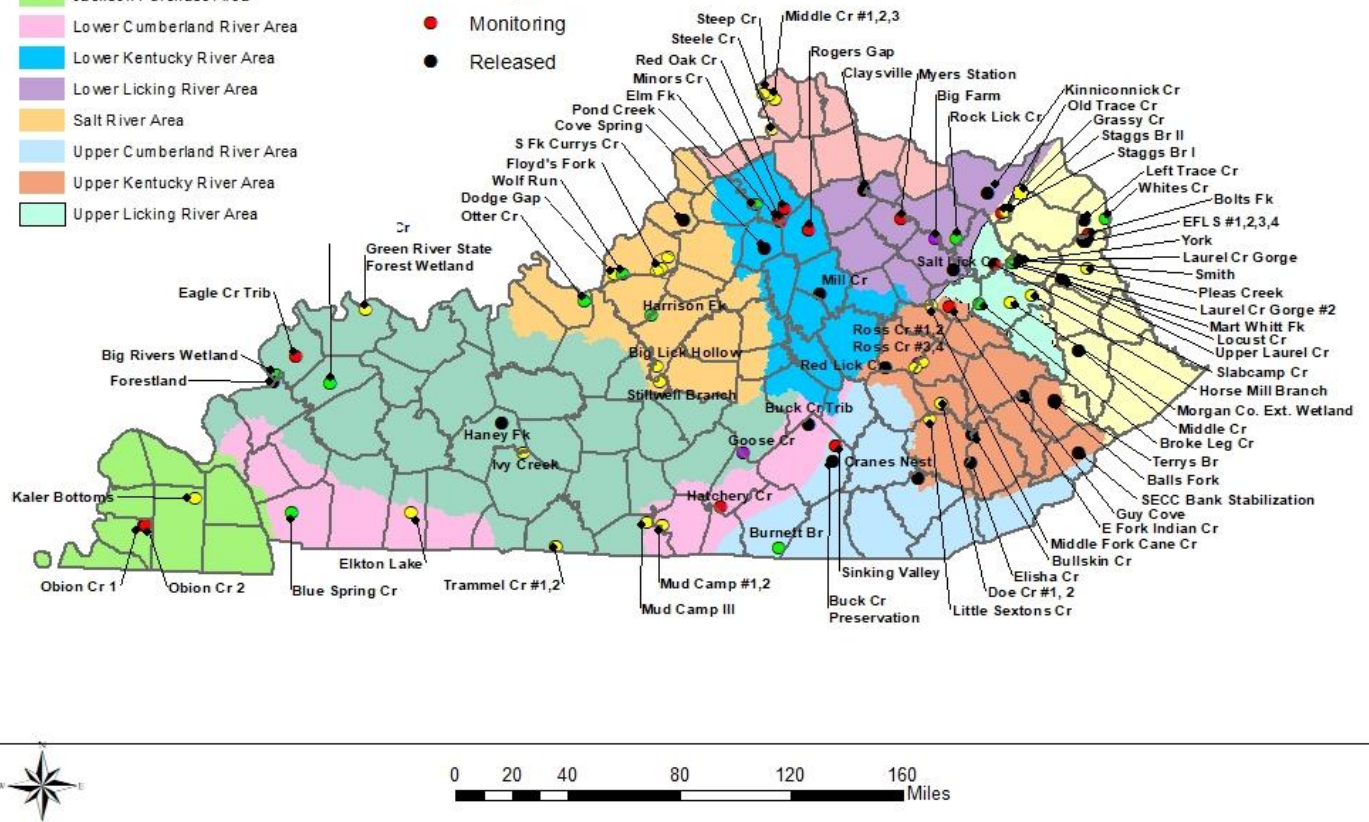
Kentucky Wetland and Stream Mitigation Program 2019 Project Status

FILO Instrument Service Areas

- Northern Kentucky Area
- Big Sandy River Area
- Green River and Tradewater River Areas
- Jackson Purchase Area
- Lower Cumberland River Area
- Lower Kentucky River Area
- Lower Licking River Area
- Salt River Area
- Upper Cumberland River Area
- Upper Kentucky River Area
- Upper Licking River Area

Project Status December 2019

- Approved
- Construction
- Design/Permit
- Monitoring
- Released



Big Sandy River Service Area – Active Project Status

There are eleven active projects in this service area and ten in the Long Term Management phase. These projects fall within the USACE Louisville District and the EKSAP region, which utilizes the EIU credit system (**Appendix B: Figure 4, Table 11**).

Bolts Fork, Boyd County. FILO submitted the Year 5 monitoring report in December 2018. Invasive species management occurred throughout the monitoring period and targeted multiflora rose, Johnson grass, autumn olive, and black alder. A bank repair was attempted in August 2018 at the upstream end of the project on the right descending bank. A “lighter-touch” approach was used with the intent to maximize the vegetative component in that area. Unfortunately, this effort was unsuccessful and a large rain event damaged the area before vegetation could establish. Efforts to repair the area again with more aggressive techniques are underway and pending a contract administered through the Finance Cabinet’s Division of Engineering and Contract Administration. The “Request for Proposal” (RFP) is still undergoing DECA procedures and has for several months. Supplemental planting will follow the repair. The KDFWR will seek monitoring release once repairs and planting are complete.

Laurel Creek Gorge #2 (Greene-Johnson tracts), Elliott County. The property is now part of the Ed Mabry-Laurel Gorge WMA. It has been combined with other properties (Smith Property and Mart Whitt Fork) purchased around the WMA into one design-build project. In 2018, FILO received a Floodplain permit and applied for a 401 WQC permit. In 2019, FILO received concurrence for Section 7 of the Endangered Species Act and revised the Mitigation Plan to address comments from the IRT.

Mart Whitt Fork, Elliott County. The property is now part of the Ed Mabry-Laurel Gorge WMA. It has been combined with other properties (Smith Property and Laurel Creek Gorge #2) purchased around the WMA into one design-build project. In 2018, FILO received a Floodplain permit and applied for a 401 WQC permit. In 2019, FILO received concurrence for Section 7 of the Endangered Species Act and revised the Mitigation Plan to address comments from the IRT.

Old Trace Creek, Lewis County. Approved in 2013, KDFWR purchased the property in March 2014. The design-build contract started in 2015 and construction began in 2017. Construction and planting were completed in early 2018, commencing the first year of monitoring. FILO submitted the Year 2 monitoring report in December 2019. Remedial actions are necessary. The tributaries to Old Trace Creek are undergoing repair by FILO staff and include bank and grade control stabilization using rock and live stakes. The Old Trace proper repair plan is pending a site visit and discussion with the design/built team and should be repaired under the construction warranty.

Smith Property, Elliott County. The 46-acre tract was purchased in November of 2015 and is an addition to the Ed Mabry-Laurel Gorge WMA. It has been combined with other properties (Mart Whitt Fork and Laurel Creek Gorge #2) purchased around the WMA into one design-build project. In 2018, FILO received a Floodplain permit and applied for a 401 WQC permit. In 2019, FILO

received concurrence for Section 7 of the Endangered Species Act and revised the Mitigation Plan to address comments from the IRT.

Staggs Branch, Lewis County. Approved in early 2016, the property was sold to another landowner before KDFWR could proceed with the purchase. The new landowner is willing to consider a compensated conservation easement along the streams and has since bought the upstream property.

Staggs Branch II, Lewis County. Approved in 2019, the property is roughly 450 acres and adjoins the upstream portion of Staggs Branch. The property was purchased by the new landowner of Staggs Branch. The addition of this property protects over 95% of Staggs Branch watershed.

Whites Creek, Boyd County. In 2015, a landowner contract was signed, a contract for an easement survey was initiated, and the 30% design was completed, including a geotechnical exploration survey on a minor slide near the project area. In 2016, the Floodplain permit was received and in 2017, the Mitigation Plan was completed. In 2018, FILO received the 401 WQC permit and applied for a 404 permit. In 2019, FILO worked towards finalizing the easement.

York Property, Elliott County. The project was approved in 2014 and it will add to the Ed Mabry-Laurel Gorge WMA. Several property issues are in the process of being resolved.

Upper Cumberland River Service Area – Active Project Status

There are four active projects in this service area and one in the Long Term Management phase. These projects are within the USACE Nashville District and the EKSAP region, which utilizes the EIU credit system (**Appendix B: Figure 5, Table 12**).

Burnett Branch, Wayne and McCreary Counties. FILO partnered with the KDOW Wild Rivers program to acquire the property for preservation and restoration. In 2015, the mineral rights were acquired on an initially excepted portion of the property. In 2016, FILO reassessed the entire property according to the Nashville USACE's new stream assessment protocol. In 2017, the property's deed was amended to include restrictions with language suitable to USACE. In 2018, the Mitigation Plan was completed and the project was put on public notice in preparation for the 401 WQC permit submittal in early 2019. In 2019, FILO submitted a Phase 2 Archaeological Survey Report for Section 106 of the National Historic Preservation Act and a Biological Assessment for Section 7 of the Endangered Species Act.

Cranes Nest Branch, Knox County. FILO submitted the Year 5 monitoring report in December 2017. The IRT and FILO conducted a compliance visit in April 2018. The KDOW released the project from monitoring. Monitoring release from the USACE Nashville District is pending the minor repair of a cross vane structure. FILO staff repaired the structure in 2019 and requested release. The USACE released the site in August 2019. The site will enter the "Long Term Management (LTM) phase in 2020.

Sinking Valley, Pulaski County. The Mitigation Plan for preservation was accepted in December 2013. This project has bi-annual monitoring requirements for 10 years with the most recent report submittal in 2019 (Year 5 of 10).

Lower Cumberland River Service Area – Active Project Status

There are six active projects in this service area and one in the Long Term Management phase. These projects are within the USACE Nashville District and the KAP region, which utilizes the AMU credit system. This service area has two distinct geographic areas in Kentucky, one in Western Kentucky and one in south-central Kentucky (**Appendix B: Figure 6, Table 13**).

Blue Spring Creek, Trigg County. The project is entirely within Lake Barkley State Resort Park with a substantial part on the park's golf course. FILO is waiting on an agreement with the Parks Department to modify the deed so that a 404 permit can be issued. In 2019, FILO completed a MOU with the Parks Department and received the 404 permit.

Elkton Lake, Todd County. IRT approved in 2018, this project intends to breach the dam and restore running water habitat to several stream channels currently inundated by the lake. The City of Elkton and four private landowners are all involved in the project area. Over 15,000 stream AMUs are anticipated with the completion of this project and it will be permanently protected with conservation easements.

Hatchery Creek, Russell County. Construction began in August 2014 with final project completion in early 2016. FILO submitted the Year 4 monitoring report in 2019. Remedial actions described in the report include invasive species management and supplemental tree planting.

Mud Camp I, Cumberland County. Approved by the IRT in 2019, the site is over 1600 acres with Cumberland River frontage. Since its approval, several additional tracts adjoining Mud Camp I have become available and FILO is currently assessing those parcels, which are Mud Camp II and Walden Woods. All three projects are still in the property phase.

Upper Licking River Service Area – Active Project Status

There are four active projects in this service area and none in the Long Term Management phase. These projects are within the USACE Louisville District and the EKSAP region, which utilizes the EIU credit system (**Appendix B: Figure 7, Table 14**).

Broke Leg Creek, Morgan County. Approved in late 2016, this property has over 35,000 feet of stream length. In 2017, the landowner signed a land contract with the intent to donate a conservation easement. In 2018, a consultant continued to collect survey data and started on initial design work. In 2019, FILO continued working on the Biological Assessment, the Phase 1 Archaeological Report, the Mitigation Plan, the design, and the easement.

Horse Mill Branch, Morgan County. IRT approved in 2018, this project would be a fee simple purchase of roughly 500 acres. It is expected to generate over 9,000 stream EIUs and up to 4.8 wetland AMUs. The project would be permanently protected with deed restrictions.

Slabcamp Creek/Stonecoal Branch, Rowan County. FILO submitted the Year 5 monitoring report in 2017. The IRT and FILO conducted a compliance visit in April 2018, in which project concerns prompted additional monitoring and follow-up compliance visit in 2019. The USACE released the site in 2019 with the KDOW requesting supplemental monitoring. A supplemental monitoring report was submitted in December 2019 with a monitoring release request. Monitoring release from KDOW is pending review of the supplemental report.

Morgan Co. Extension Wetland, Morgan County.

Lower Licking River Service Area – Active Project Status

There are three active projects in this service area and two in the Long Term Management phase. These projects are within the USACE Louisville District and the KAP region, which utilizes the AMU credit system (**Appendix B: Figure 8, Table 15**).

Big Farm, Bath County. The project was approved in 2014 and the 490-acre property was purchased in 2015. It is now part of the Clay WMA. The design-build contract was opened in early 2016. FILO is awaiting the 401 WQC. In 2019, FILO received the 401 WQC, received the 404 permit, and started construction.

Myers Station, Nicholas County. The 462-acre property was purchased in 2014 and became part of the Clay WMA. FILO submitted the Year 3 monitoring report in 2019. Some remedial actions are required on Coon and Cassidy Creeks on the southern portion of the property. Supplemental planting and invasive species work will continue on the site via contractor warranty and FILO staff.

Rock Lick Creek, Fleming County. Approved in 2017, this project will provide approximately 34,000 stream credits. The state-owned Maxey Flats property is roughly 1,000 acres and contains a former radioactive waste disposal site. In 2018, FILO hired a consultant to start collecting data for a project design. In 2019, FILO continued to collect survey data and design the project.

Salt Lick Creek, Bath County. The IRT and FILO conducted a compliance visit in early 2018, which prompted the IRT to request additional monitoring information. FILO submitted the remedial monitoring plan and monitoring release request in December 2018. The site was released by KDOW and USACE in October 2019. The site will enter the LTM phase in 2020.

Upper Kentucky River Service Area – Active Project Status

There are eight active projects in this service area and seven in the Long Term Management phase. These projects are within the USACE Louisville District and the EKSAP region, which utilizes the EIU credit system (**Appendix B: Figure 9, Table 16**).

East Fork Indian Creek, Menifee County. The project is in the Daniel Boone National Forest, with permanent protection provided by the U.S. Forest Service (USFS) Management Plan. In 2019, FILO staff planted additional container trees to improve woody stem density and diversity. FILO also initiated a contract with Eastern Kentucky University to provide additional monitoring on fish passage throughout the project reach using PIT and VIE mark-recapture techniques. This effort continued through 2019 with a final report submittal anticipated in 2020. The Year 4 monitoring report was submitted in December 2019. There are some areas identified for repairs as noted in the 2019 report and during field visits. FILO has developed a repair plan in 2019 that is pending a contract administered through the Finance Cabinet's Division of Engineering and Contract Administration. The "Request for Proposal" (RFP) is still undergoing DECA procedures and has for several months. Supplemental planting will follow the repair.

Elisha Creek, Leslie County. The project is in the USFS Daniel Boone National Forest, with permanent protection provided by the USFS Management Plan. The IRT and FILO conducted a compliance visit in early 2018 with several issues noted. FILO collected data in 2018 and early 2019 and submitted a remedial plan. A site visit was conducted in late 2019 to review the remedial actions. The site was released by USACE and KDOW in late 2019 and will enter the LTM phase in 2020.

Middle Fork Cane Creek, Powell County. The project was approved in early 2017 and it will provide over 2,700 stream credits. KDFWR plans to purchase the property which may become a WMA. No progress has been made on purchasing the property.

Muir Valley, Wolfe County. The project was approved in early 2017 and it will provide over 6,200 stream credits. FILO and the landowner are working to resolve some title issues before moving forward.

Ross Creek 1 & 2, Lee and Estill County. The project is adjacent to the USFS Daniel Boone National Forest. The 640-acre property was purchased in 2014. In 2017, FILO received all permits and the design was completed. In 2018, the project was bid for a construction contract. Once the construction is complete, the property will become public access as a WMA. In 2019, FILO began construction.

Ross Creek III, Lee County. This project was approved in 2017. KDFWR plans to purchase the property, which is adjacent to the Ross Creek 1 & 2 projects, and add it to the proposed WMA.

Ross Creek IV, Estill and Lee Counties. This project was approved by the IRT in 2019. KDFWR plans to purchase the property, which adjoins Ross Creek 1 & 2 through the Daniel Boone National Forestland.

Lower Kentucky River Service Area – Active Project Status

There are six active projects in this service area and two in the Long Term Management phase. These projects are within the USACE Louisville District and the KAP region, which utilizes the AMU credit system (**Appendix B: Figure 10, Table 17**).

Cove Spring, Franklin County. The project is in Cove Spring Park, owned by the City of Frankfort. Construction began in 2012 and the final planting was completed in 2014. FILO submitted the Year 5 monitoring report in 2018 and conducted a compliance visit in early 2019. The project was released from monitoring in 2019 and will enter the LTM phase in 2020.

Elm Fork, Owen County. The project is on Kleber WMA and is accessible to the public. Construction began in 2013 and it was completed in 2014. In 2019, FILO submitted the Year 5 report and completed minor structure repairs on the project tributaries along with invasive removal. FILO will request monitoring release in 2020 pending report review and a compliance visit.

Minors Creek, Owen County. The 309-acre property was purchased in 2014 and is now a part of the Kleber WMA. Construction began in the fall of 2017 and continued throughout 2018 with completion and final planting in early 2019. The as-built survey and first year of monitoring were completed in 2019 with reports submitted in December 2019.

Pond Creek, Owen County. The project is on the Chesney Tract of the Kentucky River WMA. It was approved in 2015 and the design started the same year. In 2016, FILO asked the design consultant for some design modifications. No additional progress was made in 2018.

Red Oak Creek Drainage C, Owen County. The project was approved in 2014 and was purchased in 2015. The 601-acre property was added to the Dr. James Rich WMA and design began in 2016. In 2017, FILO received the 401 WQC and submitted the 404 permit application. In 2018, FILO received the 404 permit and began construction. Final completion occurred in early 2019 with the as-built and Year 1 monitoring reports submitted in December 2019.

Rogers Gap, Scott County. The project included the acquisition of 2,500 acres containing approximately 28 miles of stream channel. The design-build started in 2013 and construction was completed in 2016. FILO submitted the Year 2 monitoring in 2018. In 2019, a request was made to the IRT to construct an office and enclosed shooting range in the southern portion of the Veterans WMA (Rogers Gap) property. Since this is considered a land use change, IRT consultation was required. The proposed work will occur on the southern portion of the parcel, outside of all mitigation work and does not require a permit, Instrument, or site protection modification, but did require written approval upon consultation with the IRT. In an email from the Louisville District USACE dated September 11, 2019, the request was approved. The email was filed in our records. Also, per request, this approval is documented here in the 2019 annual report.

Salt River Service Area – Active Project Status

There are eight active projects in this service area and one in the Long Term Management phase. These projects are within the USACE Louisville District and the KAP region, which utilizes the AMU credit system (**Appendix B: Figure 11, Table 18**).

Big Lick Hollow, Nelson County. IRT approved in 2018, this project was presented as part of the Full Delivery contract with Stantec Consulting Services Inc. It is expected to generate over 21,000

AMU stream credits and will be permanently protected with a conservation easement. In 2019, FILO (and Stantec Consulting Services, Inc.) continued working on the Biological Assessment, the Phase 1 Archaeological Report, the Mitigation Plan, the design, and the easement.

Dodge Gap, Jefferson County. IRT approved in 2018, this project is in the Jefferson Memorial Forest. It is expected it generate roughly 4,900 stream AMUs and will be permanently protected with a conservation easement.

Floyd's Fork, Jefferson County. IRT approved in early 2016, this project is comprised of three separate areas: Big Vista Valley, Turkey Run, and Big Beech Woods. Altogether, there is the potential for over 12,000 stream AMUs and 5.5 wetland AMUs. After several attempts to proceed with the project, a new point of contact was established in 2018. In 2019, these projects were still being considered by the new park manager.

Harrison Fork, Nelson County. In 2018, The University of Louisville applied for a 401 WQC permit. In 2019, FILO (and University of Louisville) received the 401 WQC.

Otter Creek, Meade County. The project has the largest watershed of any FILO project with just over 100 square miles. Because of its size, good water quality, and significant physical degradation, the potential exists to create outstanding habitat that will support an excellent fishery and canoe recreation. The project is still being designed and the Environmental Assessment is still being drafted. In 2019, FILO completed the Environmental Assessment, a draft Mitigation Plan, and a draft Biological Assessment.

Stillwell Branch, Larue County. IRT approved in 2018, this project is on KDFWR's Rolling Fork WMA. It is expected to generate over 42,000 AMU stream credits and will be permanently protected with deed restrictions. In 2019, FILO continued to collect survey data and design the project.

Wolf Run, Jefferson County. The project is almost entirely on the Jefferson Memorial Forest. It will be developed in coordination with the Louisville-Jefferson County Metro Parks. Design began in late 2015. There were no new developments in 2019.

Floyd's Fork Wetland, Jefferson County. This project is in The Parklands of Floyds Fork with the goal to provide the public a wildlife viewing area of wetland habitat. It is estimated to generate 6 AMU wetland credits. Property title work was initiated in 2019.

Green River Service Area – Active Project Status

There are nine active projects in this service area and two in the Long Term Management phase. These projects are within the USACE Louisville District and the KAP region, which utilizes the AMU credit system (**Appendix B: Figure 12, Table 19**).

Ivy Creek, Warren County. Approved by the IRT in 2019, this project is on private property with over 3 miles of Green River frontage. It is estimated to produce over 37,000 AMU stream credits

and 18 AMU wetland credits and will be permanently protected with a conservation easement. FILO is awaiting title work and appraisal on the property.

Green River State Forest Wetland, Henderson County. This project was approved by the IRT in 2019. It is located along the Green River and is expected to generate 100 AMU wetland credits. The landowner is deciding if they want to proceed with their offer.

Big Rivers WMA Wetland, Union County. The project was approved in 2017. It is located on the existing Big Rivers WMA and it will provide over 32 wetland credits. In 2018, FILO hired a consultant to collect data and start on a project design. In 2019, FILO continued working on the Mitigation Plan and the design.

Eagle Creek Tributary, Union County. The project is entirely within the Higginson-Henry WMA. The responsibility for fixing several plugs in the abandoned main channel is still awaiting resolution between the design consultant and the contractor. In order to assess the current conditions of the site, monitoring commenced with the Year 2 report submitted in 2018.

Farmers Creek, Webster County. The wetland and stream project was approved in 2014 and it involves three private landowners and the Lee K. Nelson WMA. In 2017, FILO learned that one of the three private landowners involved in the project was going to sell her property. KDFWR will try to purchase that piece of land to keep the design intact. The design is still at 30% completion. No additional progress was made in 2019.

Goose Creek, Casey County. The project was approved in 2013. Construction started in 2017 and continued throughout the entire year of 2018. In 2019, FILO continued construction throughout the entire year.

Trammel Creek, Allen County. FILO submitted the Year 5 monitoring report in 2014. However, the need for additional repairs and planting extended monitoring. In 2017, FILO planted additional native trees of various sizes and submitted the Year 8 monitoring report. To further help with fence damage from flooding and livestock entering the easement, the landowner was approached regarding an easement expansion. This expansion was complete in 2018 which relocated the livestock fence farther from the stream. There are some areas identified for repairs during site visits. FILO developed a repair plan in 2019 that is pending a contract administered through the Finance Cabinet's Division of Engineering and Contract Administration. The "Request for Proposal" (RFP) is still undergoing DECA procedures and has for several months. Supplemental planting will follow the repair along with discussion on monitoring release.

Trammel Creek II, Allen County. IRT approved in 2018, this project is directly downstream of the original Trammel Creek project. It is estimated to generate roughly 3,600 AMU stream credits and it will be permanently protected with a conservation easement.

Jackson Purchase Service Area – Active Project Status

There are two active projects in this service area and one in the Long Term Management phase. These projects are within the USACE Memphis and Nashville Districts and the KAP region, which utilizes the AMU credit system (**Appendix B: Figure 13, Table 20**).

Obion Creek #2, Hickman County. The Year 3 monitoring report was submitted in December 2019. Additional maintenance and invasive species work is needed to bring the project into compliance. Remedial actions will be discussed in 2020.

Kaler Bottoms, Graves County. The IRT conditionally approved this project in 2019 and it is estimated to generate 7 AMU wetland credits. It is located one mile from Kaler Bottoms WMA and will become part of the WMA after KDFWR purchases the property.

Northern Kentucky Service Area – Active Project Status

There are three active projects in this service area and none in Long Term Management. These projects are within the USACE Louisville District and the KAP region, which utilizes the AMU credit system (**Appendix B: Figure 14, Table 21**).

Middle Creek I, Boone County. The IRT approved this project in 2019 and it is expected to produce almost 6,000 AMU stream credits. This project is located upstream of future projects Middle Creek II & III. FILO plans to purchase this property and will be permanently protected with deed restrictions.

Middle Creek II, Boone County. This project adjoins the Middle Creek I restoration project and is in the early stages of development. FILO plans to purchase the property and implement permanent deed restrictions.

Middle Creek III, Boone County. This project was approved by the IRT in 2019 and is downstream of the additional Middle Creek projects. The project is in the early stages of development.

Steele Creek, Gallatin County. Approved by the IRT in 2018, this project is estimated to generate over 9,000 AMU stream credits. A new appraisal bid was issued in 2019. No other additional progress was made in 2019.

Steep Creek, Boone County. This project is in the early stages of development but is expected to generate over 15,000 AMU stream credits.

References

U.S. Army Corps of Engineers. 2018. Modification of the Agreement Concerning In-Lieu Mitigation Fees between U.S. Army Corps of Engineers and Kentucky Department of Fish and Wildlife Resources. Modification #8 Adding a Northern Kentucky Service Area. LRL-2010-325.

U.S. Army Corps of Engineers. 2011. Modification – Number One of the Agreement Concerning In-Lieu Mitigation Fees between U.S. Army Corps of Engineers and Kentucky Department of Fish and Wildlife Resources. LRL-2010-325.

U.S. Army Corps of Engineers. 2008. 33 CFR Chapter II Part 332. Compensatory Mitigation for Losses of Aquatic Resources. Federal Register Vol. 73, No. 70, April 10, 2008.

Appendix A – CY 19 Credit Sales, Costs, and Balances

Service Area	Date of Payment	Corps 404 Id. No.	Credits Sold	\$/Credit	Advanced Credits	Balance
Big Sandy Stream (EIU)					CY2019 Beginning Balance	203,328.66
					CY2019 Credit Sales	-
					CY2019 Credit Releases	453.00
					CY2019 Ending Balance	203,781.66
		CY2019 TOTAL CREDITS SOLD	-			
Upper Kentucky Stream (EIU)	04/08/19	LRL-2015-332 (2)	53.00	\$785	CY2019 Beginning Balance	218,391.37
	11/04/19	LRL-2017-1152	9,040.00	\$785	CY2019 Credit Sales	9,093.00
					CY2019 Credit Releases	
					CY2019 Ending Balance	209,298.37
		CY2019 TOTAL CREDITS SOLD	9,093.00			
Upper Licking Stream (EIU)					CY2019 Beginning Balance	226,326.40
					CY2019 Credit Sales	-
					CY2019 Credit Releases	-
					CY2019 Ending Balance	226,326.40
		CY2019 TOTAL CREDITS SOLD	-			
Upper Cumberland Stream (EIU)	11/04/19	LRL-2017-1152	985.00	\$755	CY2019 Beginning Balance	230,547.49
					CY2019 Credit Sales	985.00
					CY2019 Credit Releases	
					CY2019 Ending Balance	229,562.49
		CY2019 TOTAL CREDITS SOLD	985.00			
Lower Kentucky Stream (AMU)	01/18/19	LRL-2018-524	303.00	\$285	CY2019 Beginning Balance	222,524.80
	04/03/19	LRL-2017-599	740.00	\$285	CY2019 Credit Sales	1,043.00
					CY2019 Credit Releases	
					CY2019 Ending Balance	221,481.80
		CY2019 TOTAL CREDITS SOLD	1,043.00			
Lower Licking Stream (AMU)	07/18/19	LRL-2019-328	1,008.00	\$300	CY2019 Beginning Balance	201,860.93
					CY2019 Credit Sales	1,008.00
					CY2019 Credit Releases	2,417.00
					CY2019 Ending Balance	203,269.93
		CY2019 TOTAL CREDITS SOLD	1,008.00			-

Service Area	Date of Payment	Corps 404 Id. No.	Credits Sold	\$/Credit	Advanced Credits	Balance
Lower Cumberland Stream (AMU)	02/05/19	LRLN-2017-832	629.00	\$355	CY2019 Beginning Balance	179,967.59
					CY2019 Credit Sales	629.00
					CY2019 Credit Releases	-
					CY2019 Ending Balance	179,338.59
		CY2019 TOTAL CREDITS SOLD	629.00			
Salt Stream (AMU)	07/18/19	LRL-2018-691	231.00	\$325	CY2019 Beginning Balance	117,855.96
					CY2019 Credit Sales	231.00
					CY2019 Credit Releases	-
					CY2019 Ending Balance	117,624.96
		CY2019 TOTAL CREDITS SOLD	231.00			
Green River Stream (AMU)	07/22/19	LRL-2016-151	1,564.00	\$335	CY2019 Beginning Balance	191,949.94
	11/12/19	LRL-2018-88	1,050.00	\$335	CY2019 Credit Sales	2,867.00
	12/20/19	LRL-2017-561	253.00	\$335	CY2019 Credit Releases	-
					CY2019 Ending Balance	189,082.94
		CY2019 TOTAL CREDITS SOLD	2,867.00			
Jackson Purchase Stream (AMU)					CY2019 Beginning Balance	237,151.51
					CY2019 Credit Sales	-
					CY2019 Credit Releases	-
					CY2019 Ending Balance	237,151.51
		CY2019 TOTAL CREDITS SOLD	-			
Northern Kentucky Stream (AMU)	01/24/19	LRL-2002-01123	960.00	\$385	CY2019 Beginning Balance	94,806.00
	02/26/19	LRL-2018-573	2,403.00	\$385	CY2019 Credit Sales	87,682.50
	03/06/19	LRL-2018-352	374.00	\$385	CY2019 Credit Releases	-
	03/08/19	LRL-2018-502	1,016.00	\$385	CY2019 Ending Balance	7,123.50
	03/18/19	LRL-2018-268	67,475.00	\$385		
	03/18/19	LRL-2015-329 (2)	9,192.50	\$385		
	05/09/19	LRL-2018-427	4,863.00	\$385		
	10/15/19	LRL-2017-899	622.00	\$385		
	10/21/19	LRL-2019-577	777.00	\$385		
		CY2019 TOTAL CREDITS SOLD	87,682.50			

Service Area	Date of Payment	Corps 404 Id. No.	Credits Sold	\$/Credit	Advanced Credits	Balance
Upper Kentucky Wetland (AMU)	11/04/19	LRL-2017-1152	5.200	\$49,500	CY2019 Beginning Balance	84.450
					CY2019 Credit Sales	5.200
					CY2019 Credit Releases	-
					CY2019 Ending Balance	79.250
	CY2019 TOTAL CREDITS SOLD		5.200			
Upper Licking Wetland (AMU)					CY2019 Beginning Balance	85.780
					CY2019 Credit Sales	-
					CY2019 Credit Releases	-
					CY2019 Ending Balance	85.780
	CY2019 TOTAL CREDITS SOLD		-			
Upper Cumberland Wetland (AMU)	06/25/19	LRL-2017-729	0.700	\$49,500	CY2019 Beginning Balance	81.959
					CY2019 Credit Sales	0.700
					CY2019 Credit Releases	-
					CY2019 Ending Balance	81.259
	CY2019 TOTAL CREDITS SOLD		0.700			
Big Sandy Wetland (AMU)					CY2019 Beginning Balance	93.439
					CY2019 Credit Sales	-
					CY2019 Credit Releases	-
					CY2019 Ending Balance	93.439
	CY2019 TOTAL CREDITS SOLD		-			
Salt River Wetland (AMU)	01/17/19	LRL-2015-921	0.200	\$49,500	CY2019 Beginning Balance	57.837
	09/16/19	LRL-2019-636	1.300	\$49,500	CY2019 Credit Sales	3.900
	09/30/19	LRL-2019-376	2.400	\$49,500	CY2019 Credit Releases	-
					CY2019 Ending Balance	53.937
	CY2019 TOTAL CREDITS SOLD		3.900			
Green River Wetland (AMU)	01/24/19	LRL-2017-104	0.300	\$49,500	CY2019 Beginning Balance	146.312
	03/25/19	LRL-2017-782	2.100	\$49,500	CY2019 Credit Sales	7.300
	11/12/19	LRL-2018-88	0.800	\$49,500	CY2019 Credit Releases	-
	12/20/19	LRL-2017-561	4.100	\$49,500	CY2019 Ending Balance	139.012
	CY2019 TOTAL CREDITS SOLD		7.300			

Service Area	Date of Payment	Corps 404 Id. No.	Credits Sold	\$/Credit	Advanced Credits	Balance
Jackson Purchase Wetland (AMU)					CY2019 Beginning Balance	196.880
					CY2019 Credit Sales	-
					CY2019 Credit Releases	-
					CY2019 Ending Balance	196.880
	CY2019 TOTAL CREDITS SOLD		-			
Lower Licking Wetland (AMU)	07/18/19	LRL-2019-328	1.600	\$49,500	CY2019 Beginning Balance	99.020
					CY2019 Credit Sales	1.600
					CY2019 Credit Releases	-
					CY2019 Ending Balance	97.420
	CY2019 TOTAL CREDITS SOLD		1.600			
Lower Cumberland Wetland (AMU)					CY2019 Beginning Balance	76.057
					CY2019 Credit Sales	-
					CY2019 Credit Releases	-
					CY2019 Ending Balance	76.057
	CY2019 TOTAL CREDITS SOLD		-			
Lower Kentucky Wetland (AMU)	01/18/19	LRL-2018-524	1.100	\$49,500	CY2019 Beginning Balance	87.768
					CY2019 Credit Sales	1.100
					CY2019 Credit Releases	-
					CY2019 Ending Balance	86.668
	CY2019 TOTAL CREDITS SOLD		1.100			
Northern Kentucky Wetland (AMU)	03/14/19	LRL-2017-1028	1.000	\$49,500	CY2019 Beginning Balance	100.000
	03/18/19	LRL-2018-268	25.300	\$49,500	CY2019 Credit Sales	30.700
	10/15/19	LRL-2017-899	4.400	\$49,500	CY2019 Credit Releases	-
					CY2019 Ending Balance	69.300
	CY2019 TOTAL CREDITS SOLD		30.700			

Appendix B – Project Status

Figure 4. Project Status in the Big Sandy River Service Area

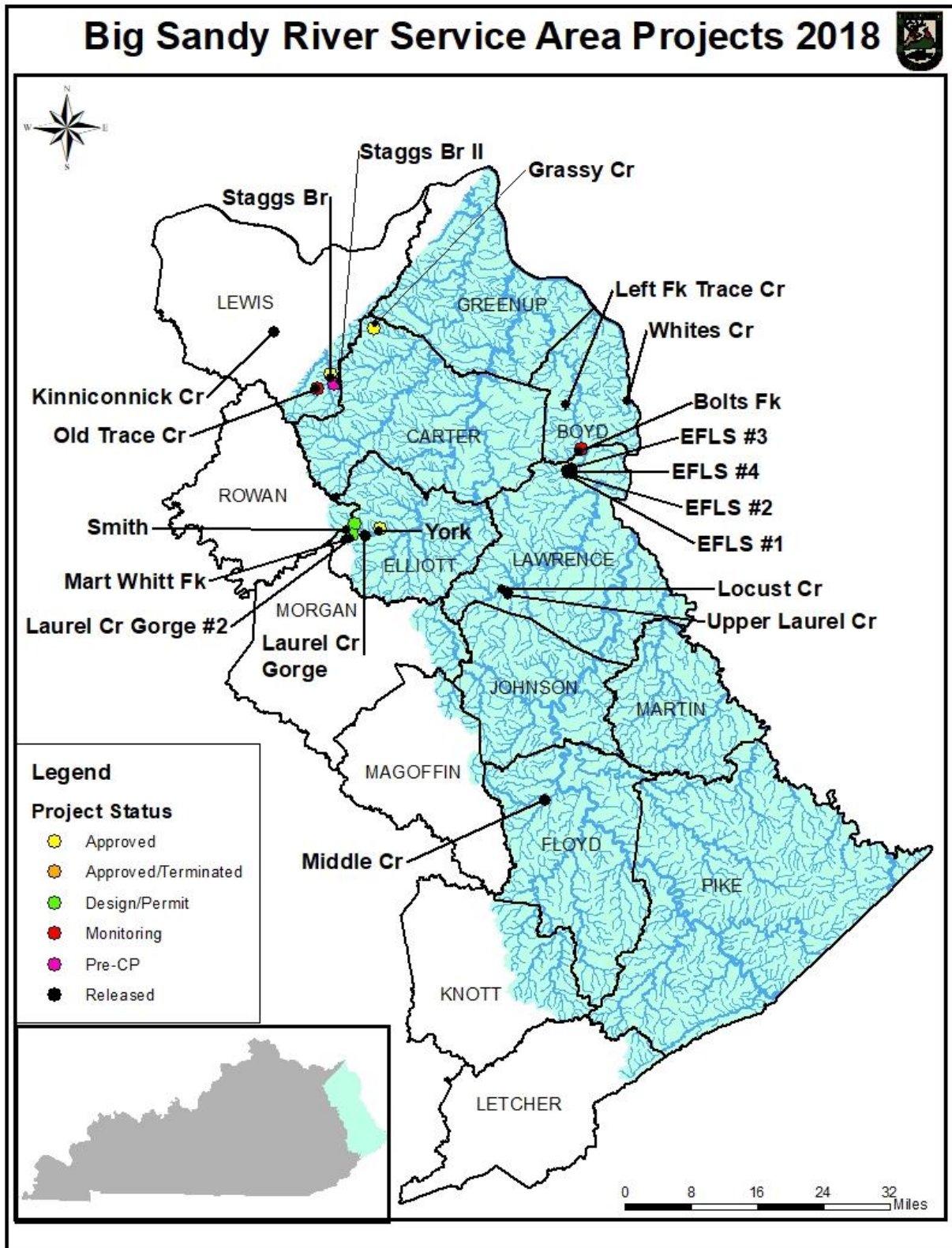


Table 11. Project Status in the Big Sandy River Service Area

Count	Project	Status	County	USACE District	404 Permit #
1	Staggs Br	Approved	Lewis	Louisville	LRL-2016-153-pgj
2	Staggs Br II	Approved	Lewis	Louisville	LRL-2019-00436
3	Pleas Cr	Pre-Approval	Lawrence	Louisville	LRL-2019-01050-pgj
4	Grassy Cr	Approved	Carter	Louisville	LRL-2019-00559-pgj
5	York	Approved	Elliott	Louisville	LRL-2013-1012-pgj
6	Laurel Cr Gorge #2	Design/Permit	Elliott	Louisville	LRL-2012-478-pgj
7	Mart Whitt Fk	Design/Permit	Elliott	Louisville	LRL-2013-598-pgj
8	Smith	Design/Permit	Elliott	Louisville	LRL-2013-1013-pgj
9	Whites Cr	Design/Permit	Boyd	Louisville	LRL-2012-634-pgj
10	Bolts Fk	Monitoring - YR 5	Boyd	Louisville	LRL-2010-698-pgj
11	Old Trace Cr	Monitoring - YR 1	Lewis	Louisville	LRL-2013-336-pgj
12	EFLS #1	Released - Long Term Management	Lawrence	Louisville	200401120
13	EFLS #2	Released - Long Term Management	Lawrence	Louisville	LRL-2009-332-pgj
14	EFLS #3	Released - Long Term Management	Lawrence	Louisville	LRL-2008-1082-pgj
15	EFLS #4	Released - Long Term Management	Lawrence	Louisville	LRL-2009-123-pgj
16	Kinniconnick Cr	Released - Long Term Management	Lewis	Louisville	LRL-2007-409-pgj
17	Laurel Cr Gorge	Released - Long Term Management	Elliott	Louisville	-
18	Left Fk Trace Cr	Released - Long Term Management	Boyd	Louisville	2006-00160
19	Locust Cr	Released - Long Term Management	Lawrence	Louisville	LRL-2008-1249-pgj
20	Middle Cr	Released - Long Term Management	Floyd	Louisville	LRL-2006-1256-pgj
21	Upper Laurel Cr	Released - Long Term Management	Lawrence	Louisville	200500901
1	Brushy Cr	Approved - Terminated	Greenup	Louisville	200400931
2	EFLS #5	Approved - Terminated	Lawrence	Louisville	LRL-2011-456-pgj
3	Ison Creek	Approved - Terminated	Elliott	Louisville	LRL-2013-222-pgj
4	Laurel Cr Tributary	Approved - Terminated	Elliott	Louisville	-
5	Laurel Tribs - Rowe Flats	Approved - Terminated	Elliott	Louisville	LRL-2013-770-pgj
6	Schultz Creek	Approved - Terminated	Greenup	Louisville	2009-806
7	Lovelace Fork	Approved - Terminated	Elliott	Louisville	LRL-2015-1022-pgj
8	Laurel Gorge - Howard Tract	Approved - Terminated	Elliott	Louisville	LRL-2014-276-pgj
9	White Oak Creek	Approved - Terminated	Greenup	Louisville	LRL-2012-787-pgj
10	Hitchins	Approved - Terminated	Carter	Louisville	LRL-2016-374-pgj
11	Barrett Creek	Approved - Terminated	Carter	Louisville	LRL-2012-635
12	Clifty Cr	Approved - Terminated	Elliott	Louisville	LRL-2013-867-pgj
13	Ben Willim Branch	Approved - Terminated	Lewis	Louisville	-
14	Keys Creek	Approved - Terminated	Boyd	Louisville	-
15	Pigeon Roost	Approved - Terminated	Boyd	Louisville	LRL-2012-26-pgj
16	Flutylick Branch	Approved - Terminated	Martin	Louisville	-
17	Buffalo Cr	Approved - Terminated	Johnson	Louisville	-
18	Cat Fork	Approved - Terminated	Lawrence	Louisville	LRL-2012-132-pgj
19	Stan Br	Approved - Terminated	Carter	Louisville	LRL-2016-374-pgj

Figure 5. Project Status in the Upper Cumberland River Service Area

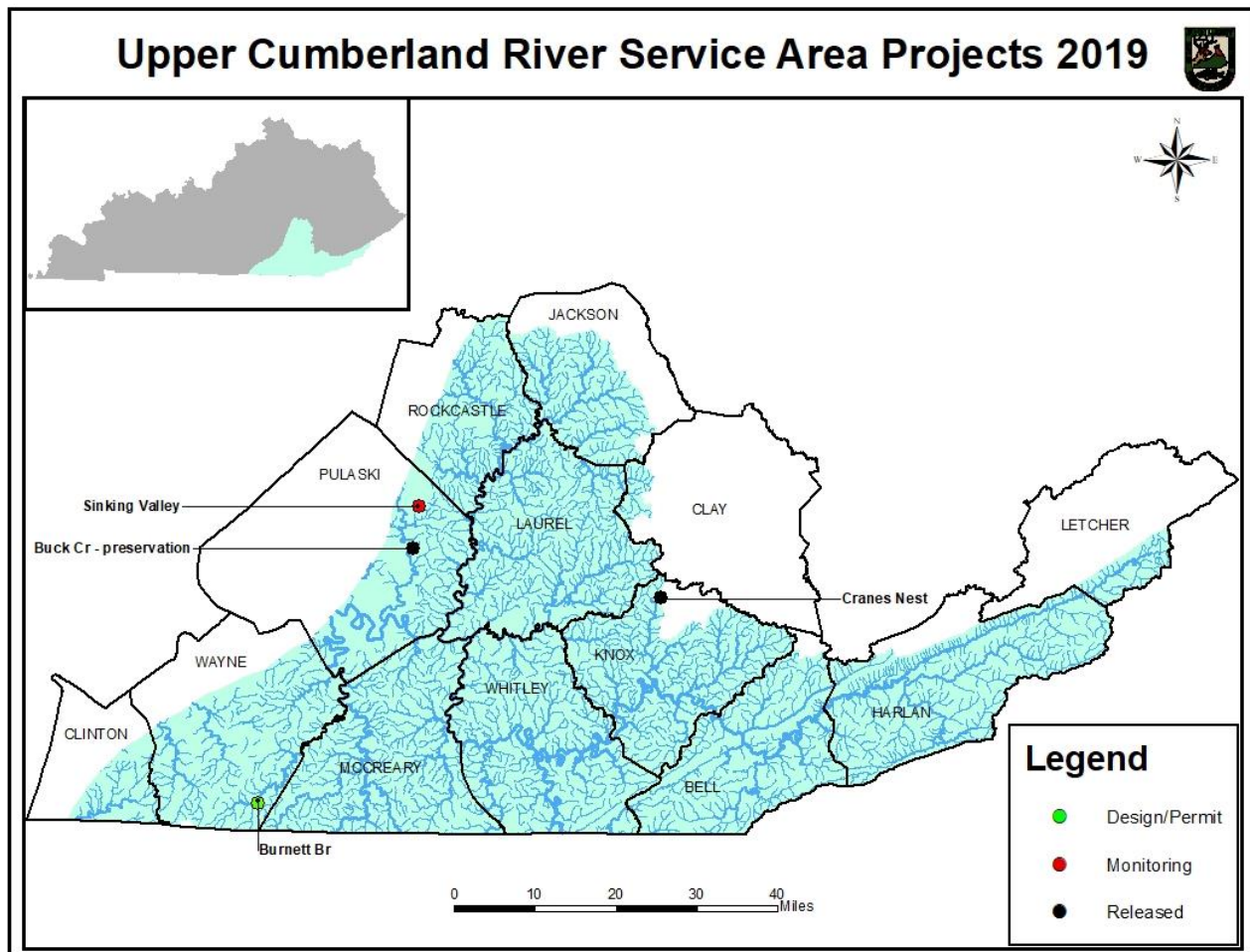


Table 12. Project Status in the Upper Cumberland River Service Area

Count	Project	Status	County	USACE District	404 Permit #
1	Burnett Br	Design/Permit	Wayne McCreary	Nashville	LRN-2013-00116
2	Cranes Nest	Released - Long Term Management	Knox	Nashville	2009-01424
3	Sinking Valley	Monitoring - YR 5	Pulaski	Nashville	LRN-2012-00326
4	Buck Cr - preservation	Released - Long Term Management	Pulaski	Nashville	
1	Steele Branch	Approved - Terminated	Wayne McCreary	Nashville	LRN-2012-01244
2	Mulberry Cr	Approved - Terminated	Whitley	Nashville	LRN-2016-00783

Figure 6. Project Status in the Lower Cumberland River Service Area

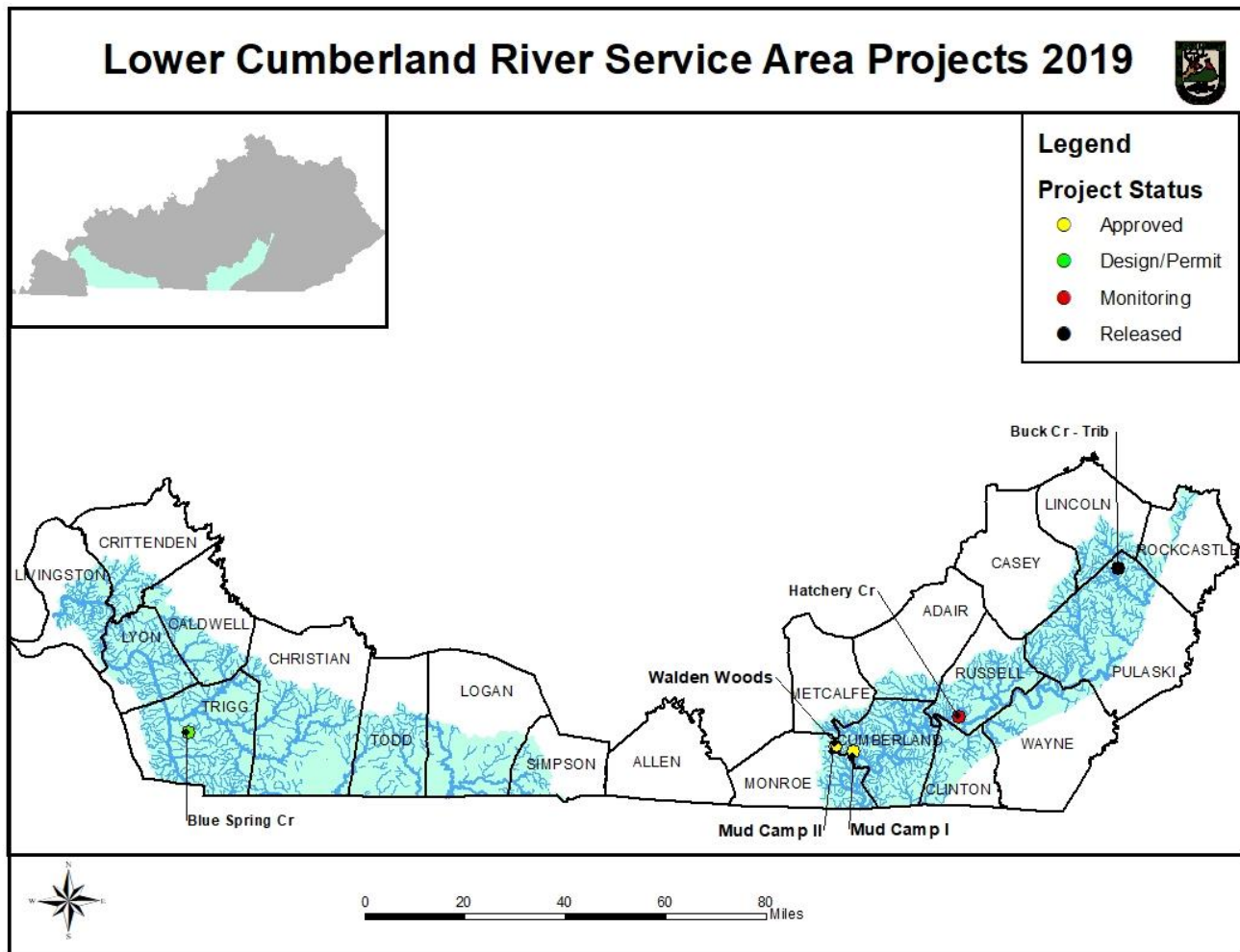


Table 13. Project Status in the Lower Cumberland River Service Area

Count	Project	Status	County	USACE District	404 Permit #
1	Mud Camp I	Approved	Cumberland	Nashville	LRN-2019-00761
2	Mud Camp II	Pre-Approval	Cumberland	Nashville	-
3	Walden Woods	Pre-Approval	Cumberland	Nashville	-
4	Blue Spring Cr	Design/Permit	Trigg	Nashville	LRN-2013-00776
5	Hatchery Cr	Monitoring - YR 4	Russell	Nashville	LRN-2010-00444
6	Buck Cr - Trib	Released - Long Term Management	Pulaski	Nashville	LRN-2006-2255
1	Puncheon Cr	Approved - Terminated	Pulaski	Nashville	-
2	Bear Den Hollow	Approved - Terminated	Pulaski	Nashville	LRN-2016-00784
3	Doan Springs	Approved - Terminated	Crittenden	Nashville	LRN-2017-00426
4	Elkton Lake	Approved - Terminated	Todd	Nashville	LRN-2018-00451
5	Ferguson Cr	Approved - Terminated	Livingston	Nashville	LRN-2018-00128

Figure 7. Project Status in the Upper Licking River Service Area

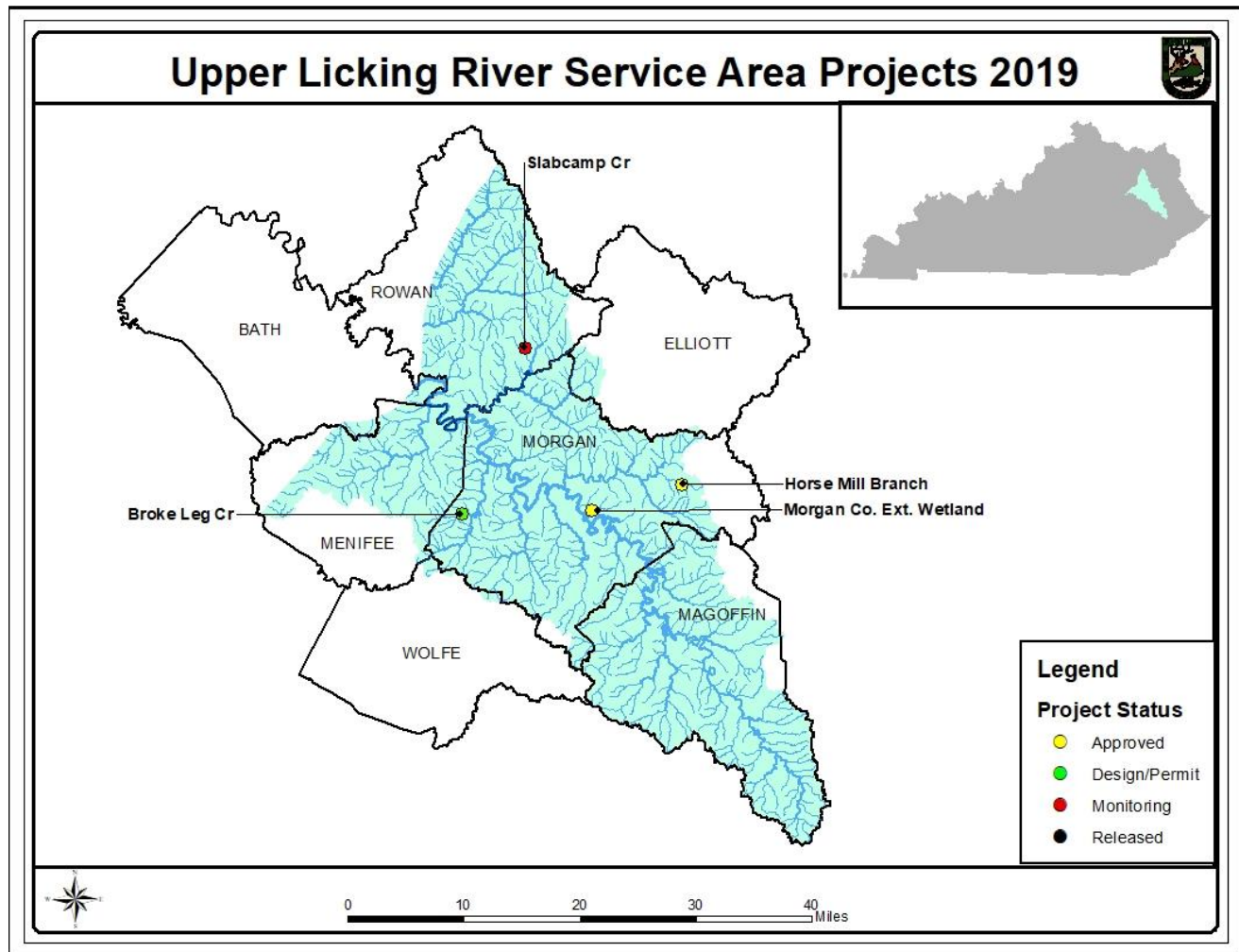


Table 14. Project Status in the Upper Licking Service Area

Count	Project	Status	County	USACE District	404 Permit #
1	Horse Mill Branch	Approved	Morgan	Louisville	LRL-2018-00100
2	Broke Leg Cr	Design/Permit	Morgan	Louisville	LRL-2016-00371-pgj
3	Slabcamp Cr	Monitoring - YR 5+	Rowan	Louisville	LRL-2009-762-pgj
4	Morgan Co. Ext. Wetland	Approved	Morgan	Louisville	LRL-2018-00682
1	Straight Cr	Approved - Terminated	Morgan	Louisville	LRL-2015-896
2	Slabcamp Cr #2	Approved - Terminated	Rowan	Louisville	-
3	Ratliff	Approved - Terminated	Meniffee	Louisville	LRL-2016-896

Figure 8. Project Status in the Lower Licking River Service Area

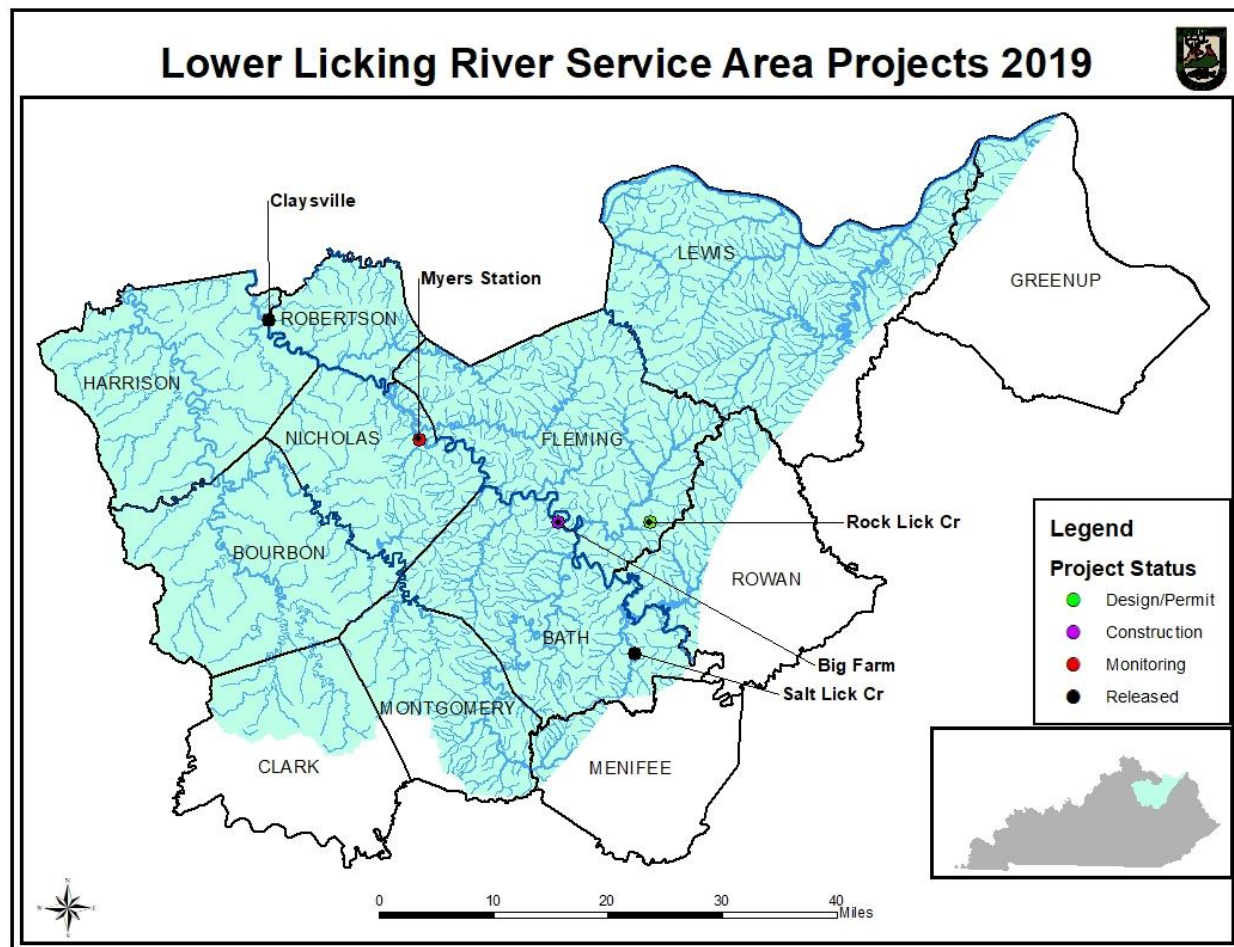


Table 15. Project Status in the Lower Licking Service Area

Count	Project	Status	County	USACE District	404 Permit #
1	Big Farm	Construction	Bath	Louisville	LRL-2014-209-pgj
2	Rock Lick Cr	Design/Permit	Fleming	Louisville	LRL-2016-393
3	Myers Station	Monitoring - YR 3	Nicholas	Louisville	LRL-2012-637-pgj
4	Salt Lick Cr	Released - LTM	Bath	Louisville	LRL-2011-891-pgj
5	Claysville	Released - LTM	Bath	Louisville	LRL-2011-891-pgj
1	Martin Mill Branch	Approved - Terminated	Fleming	Louisville	LRL-2014-443-pgj
2	Greasy Cr	Approved - Terminated	Robertson	Louisville	-

Figure 9. Project Status in the Upper Kentucky River Service Area

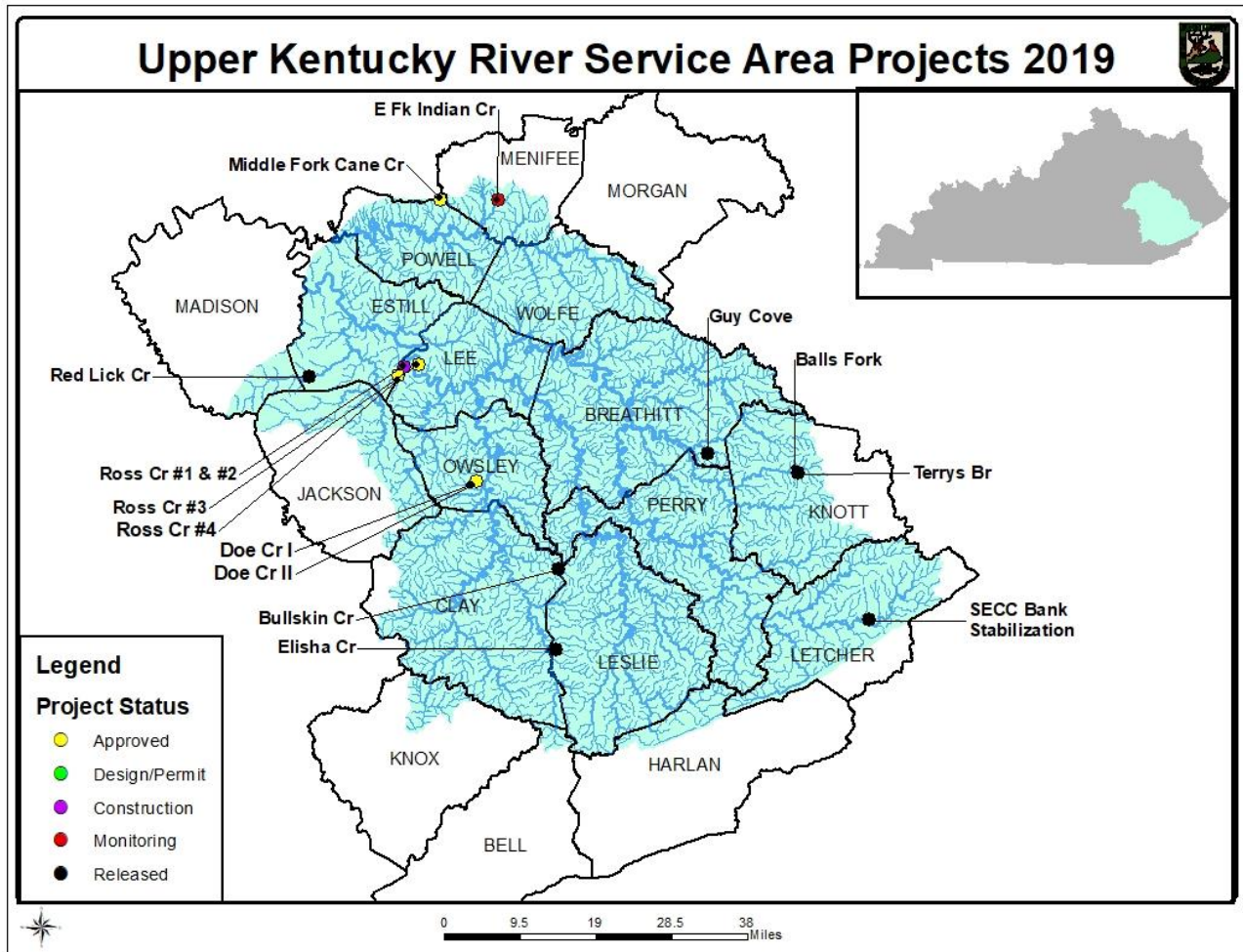


Table 16. Project Status in the Upper Kentucky River Service Area

Count	Project	Status	County	USACE District	404 Permit #
1	Middle Fork Cane	Approved	Powell	Louisville	LRL-2015-583-pgj
2	Ross Cr #4	Approved	Estill / Lee	Louisville	LRL-2019-563
3	Ross Cr #3	Approved	Lee	Louisville	LRL-2017-00042
4	Little Sextons Cr	Approved	Clay	Louisville	LRL-2018-00981-pgj
5	Doe Cr I	Approved	Owsley	Louisville	LRL-2019-00182-pgj
6	Doe Cr II	Approved	Owsley	Louisville	LRL-2019-01051-pgj
7	Ross Cr #1 & #2	Construction	Lee	Louisville	LRL-2013-143
8	E Fk Indian Cr	Monitoring - YR 3	Meniffee	Louisville	LRL-2012-273
9	Elisha Cr	Released - LTM	Leslie	Louisville	LRL-2011-404-pgj
10	Balls Fork	Released - LTM	Knott	Louisville	2002-01447
11	Bullskin Cr	Released - LTM	Leslie	Louisville	2005-00205-pgj
12	Guy Cove (Laurel Fork)	Released - LTM	Breathitt	Louisville	LRL-2007-615
13	Red Lick Cr	Released - LTM	Estill	Louisville	LRL-2005-131-lad
14	SECC Bank Stabilization	Released - LTM	Letcher	Louisville	LRL-2005-1004-the
15	Terrys Br	Released - LTM	Knott	Louisville	2005-00205
1	Upper Cane Creek	Approved - Terminated	Meniffee	Louisville	LRL-2009-433-pgj
2	Frozen Creek	Approved - Terminated	Breathitt	Louisville	-
3	Hinton Branch	Approved - Terminated	Estill	Louisville	-
4	North Fork Kentucky River	Approved - Terminated	Perry	Louisville	-
5	Red Lick #2	Approved - Terminated	Estill	Louisville	-
6	Holly Fork	Approved - Terminated	Owsley	Louisville	LRL-2015-1020-pgj
7	Sand Lick	Approved - Terminated	Powell	Louisville	-
8	Troublesome Cr	Approved - Terminated	Perry	Louisville	-
9	Persimmon Hollow	Approved - Terminated	Leslie	Louisville	-
10	Anderson Branch	Approved – Terminated	Powell	Louisville	LRL-2019-00437
11	Muir Valley	Approved – Terminated	Wolfe	Louisville	LRL-2016-1060

Figure 10. Project Status in the Lower Kentucky River Service Area

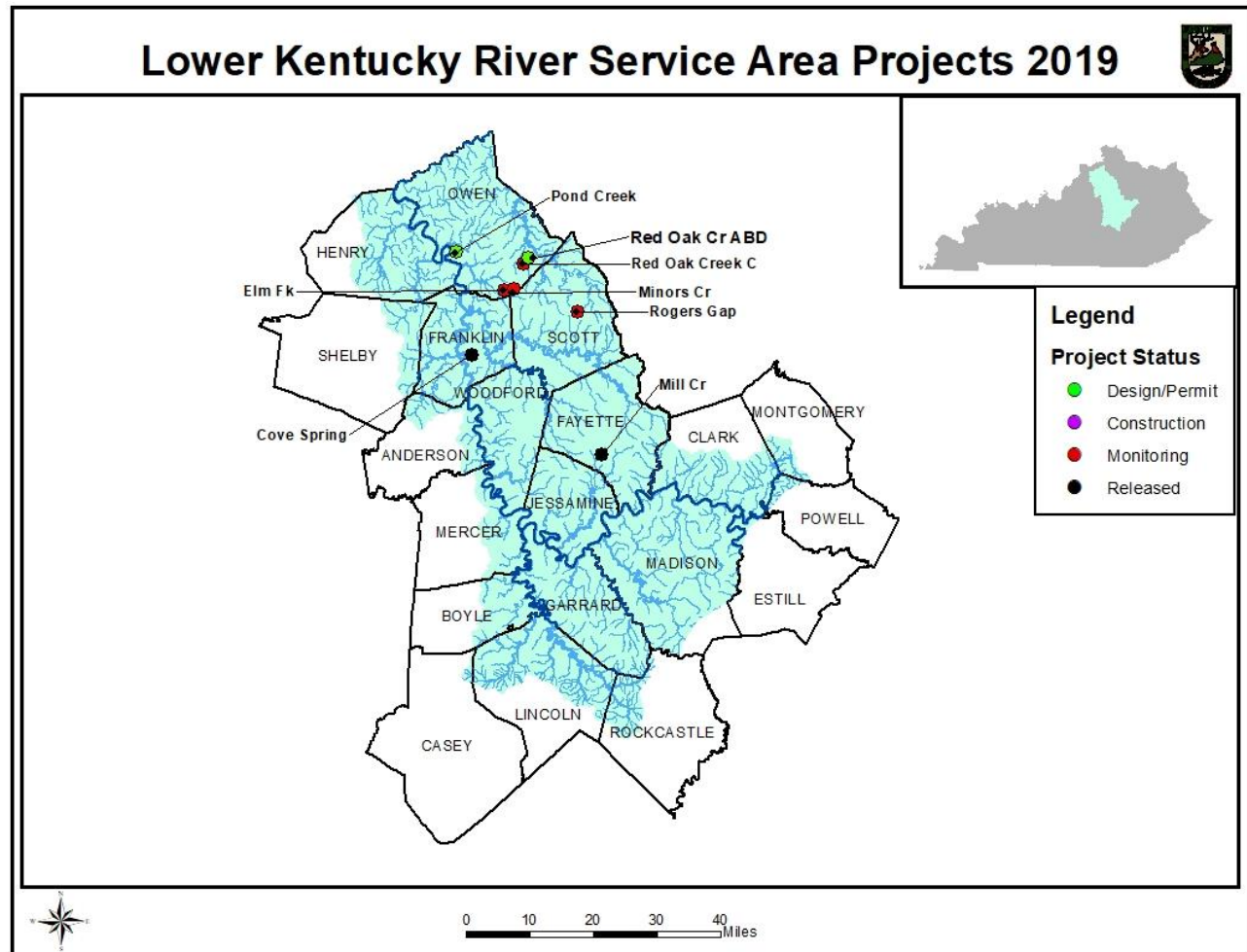


Table 17. Project Status in the Lower Kentucky River Service Area

Count	Project	Status	County	USACE District	404 Permit #
1	Pond Creek	Design /Permit	Owen	Louisville	LRL-2014-191-pgj
2	Red Oak Creek ABD	Design /Permit	Owen	Louisville	LRL-2018-00770-pgj
3	Minors Cr	Monitoring - YR 1	Owen	Louisville	LRL-2013-91-pgj
4	Red Oak Creek C	Monitoring - YR 1	Owen	Louisville	LRL-2014-500-pgj
5	Elm Fk	Monitoring - YR 5	Owen	Louisville	LRL-2012-263-pgj
6	Rogers Gap	Monitoring - YR 3	Scott	Louisville	LRL-2013-134-pgj
7	Mill Cr	Released - Long Term Management	Fayette	Louisville	LRL-2009-611-pgj
8	Cove Spring	Released - Long Term Management	Franklin	Louisville	LRL-2009-614 pgj
1	Boling Branch	Approved - Terminated	Henry	Louisville	LRL-2017-261
2	Wolf Run	Approved - Terminated	Fayette	Louisville	200600323-pgj

Figure 11. Project Status in the Salt River Service Area

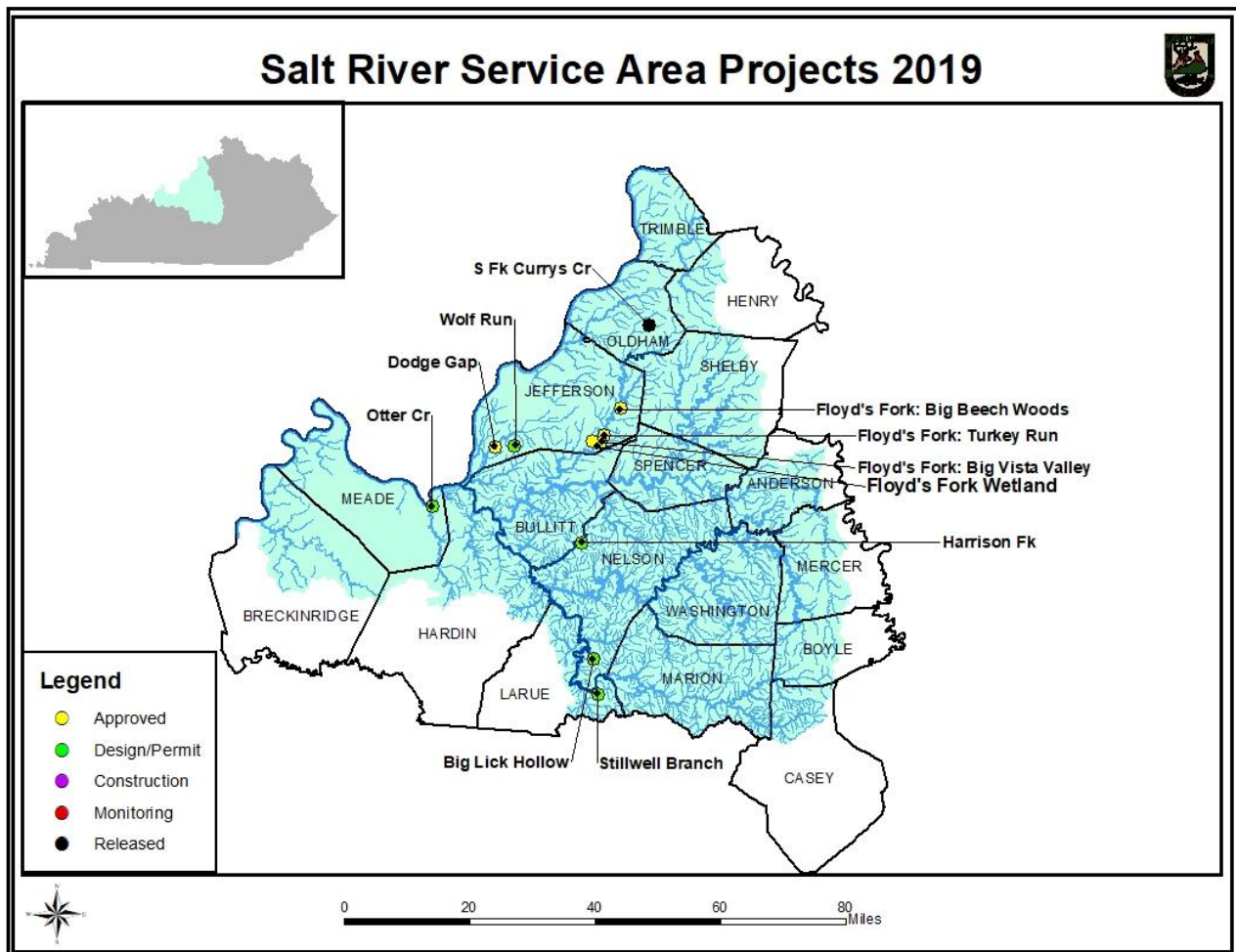


Table 18. Project Status in the Salt River Service Area

Count	Project	Status	County	USACE District	404 Permit #
1	Big Lick Hollow	Design/Permit	Nelson	Louisville	LRL-2018-00383-pgj
2	Dodge Gap	Approved	Jefferson	Louisville	LRL-2018-00112
3	Floyd's Fork Wetland	Approved	Jefferson	Louisville	LRL-2019-00933-pgj
4	Floyd's Fork Streams	Approved	Jefferson	Louisville	LRL-2015-216-pgj
5	Stillwell Branch	Design/Permit	Larue	Louisville	LRL-2017-00906-pgj
6	Harrison Fk	Design/Permit	Nelson	Louisville	LRL-2012-274-pgj
7	Otter Cr	Design/Permit	Meade	Louisville	LRL-2013-425-pg
8	Wolf Run	Design/Permit	Jefferson	Louisville	LRL-2014-60-pgj
9	S Fk Curry's Cr	Released - Long Term Management	Oldham	Louisville	LRL-2009-98-pgj

Figure 12. Project Status in the Green River Service Area

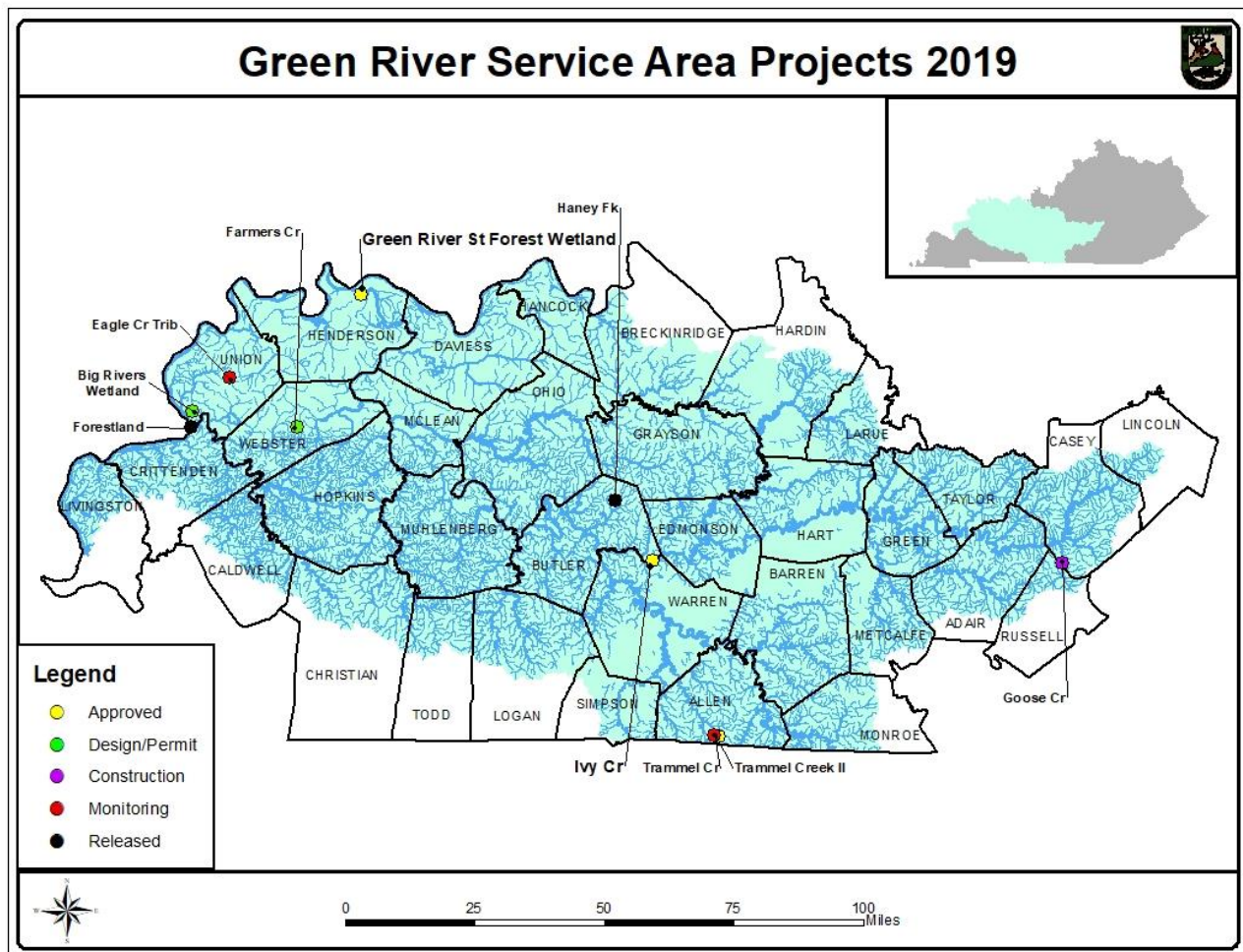


Table 19. Project Status in the Green River Service Area

Count	Project	Status	County	USACE District	404 Permit #
1	Trammel Creek II	Approved	Allen	Louisville	LRL-2018-00320-pgj
2	Ivy Creek	Approved	Warren	Louisville	LRL-2019-00895
3	Bender Hollow	Approved	Lincoln	Louisville	LRL-2018-00982-pgj
4	Green River St Forest Wetland	Approved	Henderson	Louisville	LRL-2019-00435
5	Big Rivers Wetland	Design/Permit	Union	Louisville	LRL-2016-373-pgj
6	Farmers Cr	Design/Permit	Webster	Louisville	LRL-2014-58-pgj
7	Goose Cr	Construction	Casey	Louisville	LRL-2012-646-pgj
8	Eagle Cr Trib	Monitoring - YR 3	Union	Louisville	LRL-2012-716 pgj
9	Trammel Cr	Monitoring - YR 6+	Allen	Louisville	LRL-2008-936-pgj
10	Forestland	Released - Long Term Management	Union	Louisville	-
11	Haney Fk	Released - Long Term Management	Butler	Louisville	LRL-2004-01363
1	Green River Lock and Dam 6	Approved - Terminated	Edmonson	Louisville	LRL-2016-43-pgj
2	Boys Cr	Approved - Terminated	Barren	Louisville	LRL-2013-545-pgj

Figure 13. Project Status in the Jackson Purchase Service Area

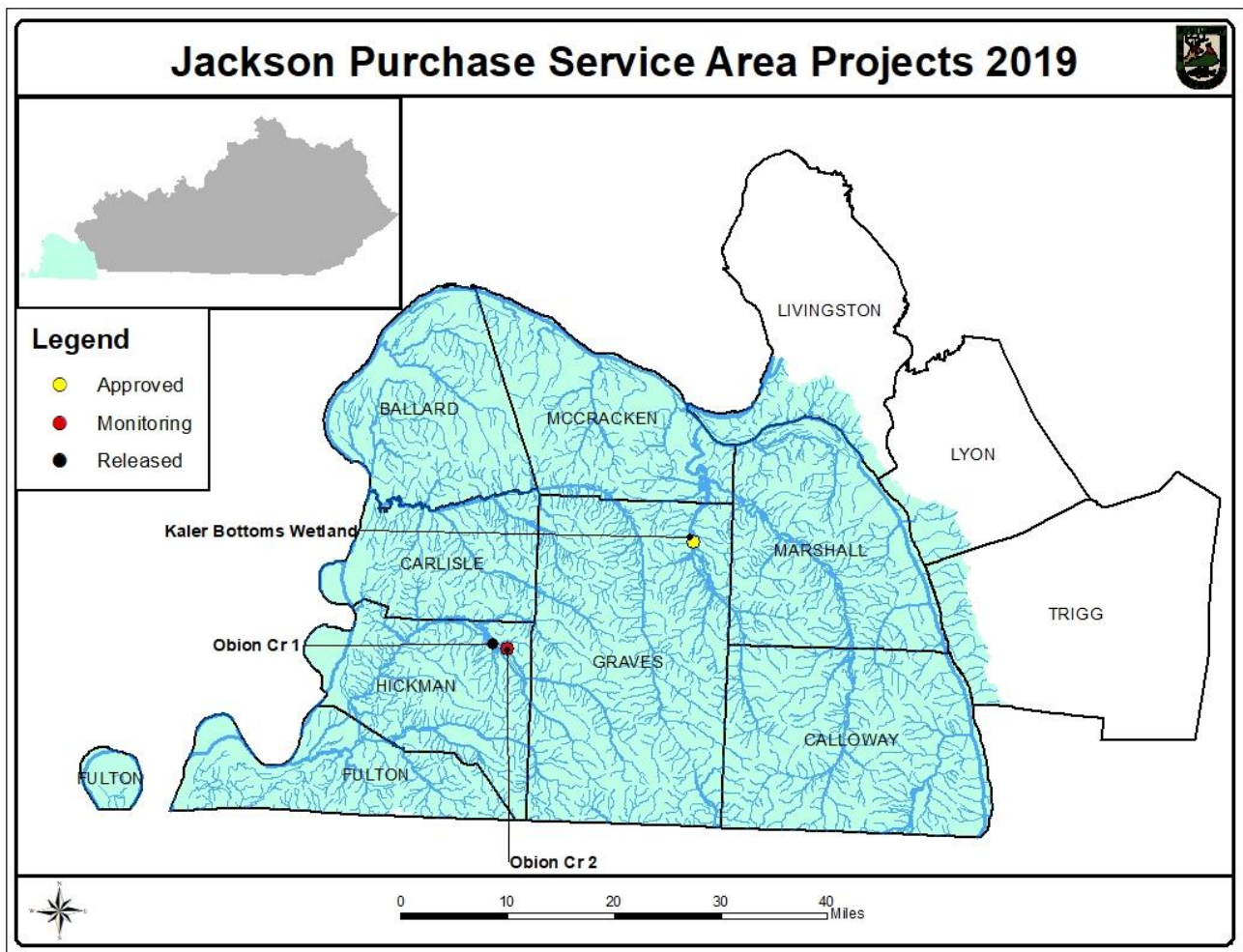


Table 20. Project Status in the Jackson Purchase Service Area

Count	Project	Status	County	USACE District	404 Permit #
1	Obion Cr 2	Monitoring - YR 2	Hickman	Memphis	MVM-2010-074
2	Obion Cr 1	Released - Long Term Management	Hickman	Memphis	200300263
3	Kaler Bottoms	Approved	Graves	Nashville	LRL-2019-00536
1	East Fork Clark's River	Approved - Terminated	Calloway	Nashville	-

Figure 14. Project Status in the Northern Kentucky Service Area

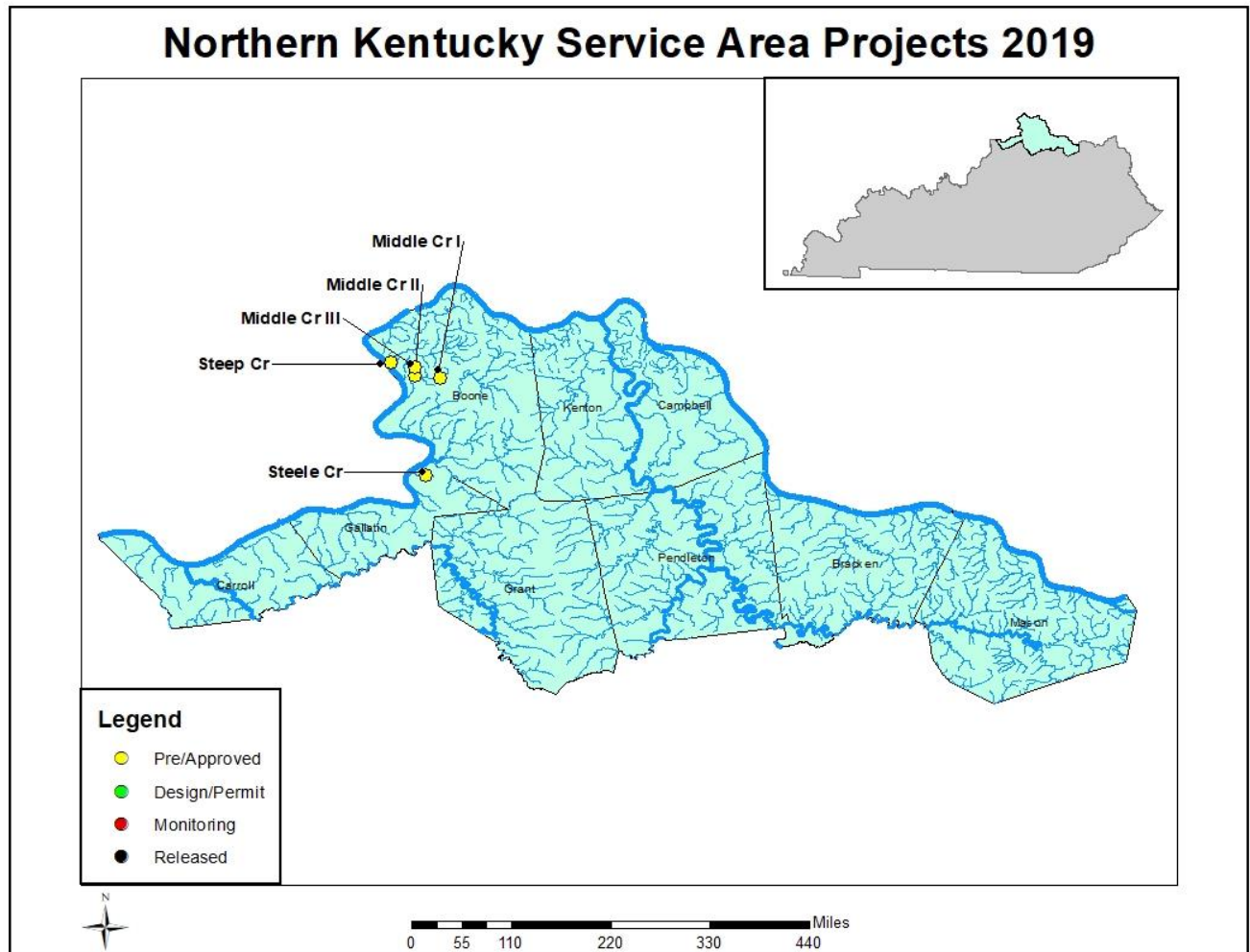


Table 21. Project Status in the Northern Kentucky Service Area

Count	Project	Status	County	USACE District	404 Permit #
1	Middle Cr I	Approved	Boone	Louisville	LRL-2019-161
2	Middle Cr II	Pre-Approval	Boone	Louisville	LRL-2019-01052
3	Middle Cr III	Approved	Boone	Louisville	LRL-2019-00590
4	Steel Cr	Approved	Gallatin	Louisville	LRL-2018-00725
5	Steep Cr	Pre-Approval	Boone	Louisville	LRL-2018-00383

Appendix C – Compliance and Long Term Management Activities

Long Term Management Activities

The following sites are in the Long Term Management (LTM) phase. These sites are released from monitoring and visited annually (at a minimum) by KDFWR staff. Prior to the site visit, a letter mailed to the project landowner(s) notifies them of upcoming visits and provides contact information for KDFWR FILO Staff. The narrative below includes field notes from the 2018 site visits. Site photos are available upon request. Staff names and corresponding initials are:

BM-Bethany Mulhall
TB-Tom Burberry
KS-Kristy Stroud

JE-Jessica East
MB-Mitchell Boles
JC-Jason Curry

RL-Rob Lewis
JB-Jessie Boles

Big Sandy River Service Area – LTM Sites

East Fork Little Sandy #1-4 (7-10-18)

TB and MB viewed all of the East Fork Little Sandy (EFLS) sites, including those on Little East Fork. The majority of the project area had no signs of easement encroachments or stability issues. The easement has developed into a scrubby habitat type consisting of mainly willow and sycamore trees along with dense herbaceous vegetation. Beaver dams are present throughout the project lengths. The previously cut tributaries on the Mullet (formerly McNeil) property were reviewed. Although the new landowner cut trees on the site in 2017, he did not remove the stumps allowing for re-sprout. This is being considered a temporary impact and the landowner indicated he was unaware of an easement when acquiring the property. The easement documents were later provided to the new landowner along with verbal a warning to stop all actions that violate the easement. No new easement violations were observed in 2018.

Kinniconick and Indian Creek (7-11-2018)

The site was visited by BM and JE. No easement encroachments were noted and the project appears stable.

Laurel Creek Gorge

The site was visited by FILO staff en route to surrounding projects. No easement encroachments were noted and the project appears stable.

Left Fork Trace Creek (7-10-2018)

The site was visited by BM and JE. No easement encroachments were noted and the project appears stable.

Locust Creek (7-10-2018)

The site was visited by BM and JE and appeared stable and well vegetated. No easement encroachments were noted. Mr. Marcum, a landowner who recently purchased the upstream end of the project area (formerly Bell property), indicated he was aware of the easement and in agreement with the terms. For further information, copies of the easement were mailed to his addresses upon return to the office.

Middle Creek (7-16-2018)

The site was visited by BM and JE. On the upstream end of the project, no easement violations were noted. The easement marker signs were in place. On the downstream third of the project, some mowing and hay baling occurred beyond the easement marker signs. Conversations with the property manager regarding this issue are ongoing. Survival of previously planted balled and bur lapped trees was evident.

Upper Laurel Creek (7-10-2018)

The site was visited by BM and JE. No easement encroachments were noted and the project appears stable.

Upper Cumberland River Service Area – LTM Sites

Buck Creek Preservation

The site remains under KDFWR ownership and protection.

Lower Cumberland River Service Area – LTM Sites

Buck Creek-Trib

The Nature Conservancy provided the permanent protection on this mitigation site. BM corresponded with The Nature Conservancy and confirmed that the project has not changed.

Lower Licking River Service Area – LTM Sites

Claysville Land Acquisition Site (7-12-2018)

The site was visited by BM and JE. No encroachments were noted. The site appeared to be under the same ownership as land use and management practices did not differ from previous visits or accounts from previous monitoring reports.

Upper Kentucky River Service Area – LTM Sites

Balls Fork and Terry's Branch (4-11-2018)

The sites were visited by JB and RL. The easement was intact with native vegetation and no easement encroachments were noted. All repaired areas are stable and functioning properly.

Bullskin Creek (11-8-2018)

The site was visited by BM and JE. No easement encroachments were noted. The project appeared to be stable and there were some larger trees present in the riparian area including black willow and some oak trees. There were some native herbaceous species in the riparian zone, but Japanese Knotweed still made up a large component of the zone. A large beaver dam was constructed on the upper third of the project and created an impoundment, but this is not viewed as a detriment to the project. Overall, the project appeared to be stable and trending toward a mature riparian zone.

Guy Cove-UK Laurel Fork (7-27-2018)

BM and JE attempted a site visit in July 2018 that was unsuccessful due to a road washout. The surrounding accessible property is under the same ownership and management by KDFWR and

the University of Kentucky (UK). Upon return, UK staff were contacted and they sent FILO recent photos of the site. The photos and correspondence with UK staff indicated that the site appeared in similar or better condition compared to previous site visits, including presence of dense, native vegetation. Easement violations were not observed in the photos or from communication with UK land management staff.

Red Lick Creek (7-9-2018)

The site was visited by JE. No easement encroachments were noted. The riparian zone was dense with native vegetation and the project appeared stable.

SECC Bank Stabilization

BM made contact with the college staff and confirmed that the project remains the same.

Lower Kentucky River Service Area – LTM Sites

Mill Creek Elementary (7-9-2018)

The site was visited by BM and JE. No easement encroachments were noted and the project appears stable. The completion and filing of easement documentation is still pending.

Green River Service Area – LTM Sites

Haney Fork (7-18-2018)

The site was visited by BM and TB. Upon approaching the site, signs were present indicating protection by “Southern Conservation Corp”. Site observations showed no disturbances or encroachments on the property. Early successional growth proved so thick making it difficult to navigate on foot. Trees appeared dense, diverse and native. Many oak species, persimmon, and early successional sycamore volunteers were observed. The landscape also included meadow characteristics that appeared undisturbed and heavily used by wildlife. All drainages appeared undisturbed and heavily vegetated.

Forestland

Located on Big Rivers WMA, this preservation project protects the Tradewater River corridor via deed restrictions and state regulations that limit incompatible activities on wildlife management areas. No encroachments on the corridor have been identified by KDFWR staff.

Jackson Purchase Service Area – LTM Sites

Obion Creek 1 (11-2018)

The site was visited by KS. No easement encroachments were noted.

Appendix D – Approved Compensatory Mitigation Projects

Table of Corps Approved Mitigation Projects: KDFWR Mitigation Program - Louisville LRL-2010-325							
PROJECT	COUNTY	SERVICE AREA	Instrument Mod. No.	404 PERMIT ID.NO.	404 PERMIT APPROVAL DATE	401 WQC ID. NO.	401 WQC APPROVAL DATE
ILF-KDFWR Elm Fork/Kleber WMA Stream Restoration Project (MOA)	Owen	Lower Kentucky River Service Area	2	LRL-2012-00263	02/12/13	2012-050-1	10/22/12
ILF-KDFWR Indian Creek Stream Restoration Project (MOA)	Menifee	Upper Kentucky River Service Area	3	LRL-2012-00273	07/09/13	2013-009-1	03/07/13
ILF-KDFWR Roger's Gap Stream Restoration Project (MOA)	Scott	Lower Kentucky River Service Area	4	LRL-2012-00134	12/04/13	2013-026-1	06/26/13
ILF-KDFWR Eagle Creek Tributaries Restoration Project (MOA & ILF-I)	Union	Green River Service Area	5	LRL-2012-00716	01/16/15	2014-18-1M	06/04/14
ILF-KDFWR Myer's Station Stream Restoration (ILF-I)	Nicholas	Lower Licking River Service Area	6	LRL-2012-00637	04/20/16	2016-004-1	01/15/16
ILF-KDFWR Old Trace Creek Restoration (ILF-I)	Lewis	Big Sandy River Service Area	7	LRL-2013-00336	02/13/17	2016-029-1	04/26/16
KDFWR ILF Instrument Full Modification (to add 9 counties/change SA)	All	9 County Region	8	LRL-2010-325		NA	
ILF-KDFWR Goose Creek Restoration (ILF-I)	Casey	Green River Service Area	9	LRL-2012-00646	03/23/17	2016-090-7	09/21/16
ILF-KDFWR Minor's Creek Restoration (ILF-I)	Owen, Franklin	Lower Kentucky River Service Area	10	LRL-2013-00091	05/22/17	2016-097-1	10/31/16
ILF-KDFWR Ross Creek Stream & Wetland Restoration Phase I & II (MOA & ILF-I)	Lee, Estill	Upper Kentucky River Service Area	11	LRL-2013-00143	10/26/17	2016-111-7R	09/25/17
ILF-KDFWR Red Oak Creek Restoration Project, Drainage C (ILF-I)	Owen	Lower Kentucky River Service Area	12	LRL-2014-00500	04/17/18	2017-091-1	12/18/17
ILF-KDFWR Big Farm Indian Creek Restoration Project (ILF-I)	Bath	Lower Licking River Service Area	13	LRL-2014-00209	05/30/19	2019-001-7	10/05/18
Table of Corps Approved Mitigation Projects: KDFWR Mitigation Program - Nashville LRN-2011-00709							
PROJECT	COUNTY	SERVICE AREA	Instrument Mod. No.	404 PERMIT ID.NO.	404 PERMIT APPROVAL DATE	401 WQC ID. NO.	401 WQC APPROVAL DATE
Sinking Valley Preservation Project	Pulaski	Upper Cumberland	2	LRN-2012-00326	12/11/2013	n/a	n/a
Hatchery Creek Restoration Project	Russell	Lower Cumberland	3	LRN-2010-00444	7/25/2014	23-041-7M(3)	7/15/2014
Blue Spring Creek Stream Restoration Project	Trigg	Lower Cumberland	4	LRN-2013-00776	4/23/2019	2015-092-1R	1/3/2019
Table of Corps Approved Mitigation Projects: KDFWR Mitigation Program - Memphis MVM-2013-95							
PROJECT	COUNTY	SERVICE AREA	Instrument Mod. No.	404 PERMIT ID.NO.	404 PERMIT APPROVAL DATE	401 WQC ID. NO.	401 WQC APPROVAL DATE
Obion II	Hickman	Jackson Purchase	1	MVM-2010-074	4/29/2014	2010-027-1	3/23/2010